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(54) Title: METHOD FOR ELECTROMAGNETICALLY RESTRUCTURING WATER FOR CONSUMPTION

(57) Abstract: The present invention relates to beneficially restructuring water for the benefit of organisms. In an embodiment of a method of the present invention electromagnetic energy is applied to water for the purpose of altering its structure so that when the water is ingested by, or applied to, various organisms the organisms are beneficially effected. Water that has been subjected to treatment according to the methods of the present invention is softer, more quickly absorbed and has improved solvency properties. Also disclosed are systems utilizing a method of the present invention.

METHOD FOR ELECTROMAGNETICALLY RESTRUCTURING WATER FOR CONSUMPTION

TECHNICAL FIELD

This invention relates to applying electromagnetic energy to water in order to beneficially restructure water for consumption by organisms. More particularly, water is subjected to specific electromagnetic flux densities and frequencies of electromagnetic radiation in order to beneficially restructure the water and its contents.

BACKGROUND OF THE INVENTION

In order to treat disease, organisms have previously been subjected to electromagnetic fields of various types, and a number of procedures involving the use of magnetic fields to treat disease have been described in various references. For example, U.S. Patent No. 4,323,056 discloses numerous prior art patents and publications describing the use of electromagnetic materials and electromagnetic fields, e.g., lasers, microwaves and radio frequency ("RF") induced magnetic fields, in the therapeutic treatment of mammals suffering from various disease conditions. These patents and publications typically teach ingestion of magnetic materials, for example, iron oxide, in patients in conjunction with the application of a magnetic force. Ferromagnetic particles become heated as a result of the coupling thereof to the magnetic field through their dielectric and hysteresis loss, the induced heating constituting the therapeutic properties of this form of treatment.

It is believed that these prior art processes were not successful for a number of reasons. The magnetic form of iron oxide is insoluble in body fluids and in substantial concentrations may be toxic to, or rejected by, the body. In addition, in many instances the amount of heat generated by these particles was excessive and substantial unwanted injury to tissue was experienced.

Devices for applying electromagnetic energy to living tissue are also disclosed, for example, in U.S. Patent Nos. 2,099,511, to Caesar; 2,103,440, to Weissenberg; and 781,448 to McIntyre. Caesar teaches applying an alternating magnetic field to a localized area, and it is also believed to rely primarily on localized heating (diathermy). Weissenberg teaches application of a low level field, and McIntyre teaches means ostensibly applying a homogeneous field to the whole body of a plant or animal, for therapeutic reasons. These patents demonstrate the interest in application of electromagnetic energy to plants and animals for therapeutic reasons, but do not teach any particular means for determining a field strength or frequency that will have any particular beneficial effects.

In connection with accelerating healing of traumatic injuries, U.S. Patents No. 4,611,599 and 4,576,172, both to Bentall, U.S. Patent No. 3,890,953 to Kraus et al., and U.S. Patent No. 3,738,369 to Adams et al., induce particular fields for purposes of promoting growth of damaged tissue. The prior art includes a wide range of field strengths and frequencies, Bentall teaching RF frequencies and Kraus teaching power line frequencies.

In addition, U.S. Patent Number 5,269,746, to Jacobson, the present inventor, teaches a method of therapeutically treating epilepsy and Parkinson's disease which comprises subjecting mammals suffering from these diseases to an alternating magnetic field having flux density and a frequency calculated as a function of the mass of the oncogene, target gene, messenger RNA, protein, enzyme and/or hormone. This calculation equates the energy of a current electromagnetically induced in the mammal with the gravitational energy of the target genetic material, such that a dual resonance is achieved.

Although these references may disclose certain beneficial effects of electromagnetism on organisms, they do not disclose a process whereby water itself is treated with electromagnetism in order to beneficially restructure the water. Methods and devices for beneficially restructuring water are therefore needed, and are provided by the present invention.

SUMMARY OF THE INVENTION

None of the references discussed above have disclosed the advantages that can be obtained by applying electromagnetic energy directly to water for the purpose of altering its structure so that when the water is ingested by, or applied to, various organisms, the

organisms are beneficially affected. According to the present invention, means are provided for calculating the flux densities and frequencies appropriate for restructuring water and its contents, by tailoring the flux density and frequency applied to the water for a given purpose. After determining the correct flux density and frequency to be applied to water for a particular application, a homogeneous electromagnetic field is applied to the water at the prescribed levels thereby inducing changes in the physical properties of the water.

Water which has been subjected to Jacobson Resonance (also referred to as "restructured", "resonated" or "organized" water) is softer, more quickly absorbed and has improved solvency properties; i.e., it is able to resonate with more soluble matter. Therefore, restructured water will improve the health of humans and animals through resonance derived of improved organization. The restructured water will enhance the growth of fruits, vegetables, and plants in general. Magnetization of water solvents will improve the detergent capability of organisms by improving reactivity and capacity for interactivity with more soluble matter. The beneficial properties of organized water will therefore be seen when the water is utilized for bathing, cooking, cleaning, drinking, agriculture, medicine, veterinary medicine, cosmetics, and other applications.

The present invention, therefore provides for electromagnetic treatment of water, more preferably natural or spring water, with Jacobson Resonance in order to render the water more conducive to organismic life by restructuring and clustering molecules within the water, thereby increasing the absorption rates, biological coherence, and cooperativity of the water to the solute within the water. The present invention generally includes subjecting water to alternating and steady magnetic fields having flux densities ranging from 10^{-5} gauss to 10^{-21} gauss, and frequencies ranging from direct current ("DC" or 0 hertz) to 300 hertz. These magnetic fields recrystallize water molecules, particularly those water molecules with trace metals critical to the regulation of genetic information transfer. The invention may utilize various protocols in order to mechanically vibrate other targets.

The present invention also provides an apparatus for applying magnetic fields of the type described above to water. The apparatus, referred to as the "Jacobson Resonator" or the "Resonator", is comprised of a signal generator, attenuator unit, a set of simplified Helmholtz coils, and an application device on which the water to be treated is placed.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows a water molecule's angular structure.

Figure 2 shows water states in living systems.

Figure 3 shows the dynamic solution of the tessellation by regular pentagons: α β and δ are possible distortions of the five fold symmetry, thus becoming non-regular units. With δ the five fold symmetry is kept.

Figure 4 shows the proper tessellation on the plain sheet by non-regular pentagons.

Figure 5 shows the peculiar structure of water as a quasi-crystalline polymeric structure: wherein the molecules are permanent dipoles which join labily creating a network of hydrogen bonds.

Figure 6 illustrates that a water molecule joins another four forming a constantly changing short lived polymeric highly cooperative structure. Additionally, it shows that polarity makes water molecules cluster around ions. Polar molecules are therefore also hydrophile and hydrosoluble.

Figure 7 illustrates hydrophobic interactions linking molecules.

Figure 8 illustrates a solenoidal system magnetizing water molecules, preparing the structured water for human consumption.

Figure 9 is a diagram of the effect of the field on the motion of water.

Figure 10 is a perspective view of the support stand and application device of the Jacobson resonator.

Figure 11 is a schematic of the basic circuit of the Jacobson resonator.

DETAILED DISCUSSION OF THE INVENTION

The method of the present invention provides for electromagnetic treatment of water, with Jacobson Resonance in order to render the water more conducive to organismic life by restructuring and clustering molecules within the water, thereby increasing the absorption rates, biological coherence, and cooperativity of the water to the solute within the water. The method generally includes resonation of water at various flux densities and frequencies depending upon the use which will subsequently be made of the resonated water. After resonation, the water is thereafter applied to, or consumed by, organisms to treat disease and promote health of animal organisms and is also beneficial in enhancing the

growth of plants, particularly fruits and vegetables.

According to the present invention, water is subjected to alternating and steady magnetic fields having flux densities ranging from 10^{-5} gauss to 10^{-21} gauss, and frequencies ranging from direct current ("DC" or 0 hertz) to 300 hertz. These magnetic fields recrystallize water molecules, particularly those water molecules with trace metals critical to the regulation of genetic information transfer. The invention may utilize various protocols in order to mechanically vibrate targets such as whole viruses, parts of viruses (such as the gp120 envelope of HIV which juts into a CD4 receptor site of T-4 lymphocytes), bacterium, fungi, and other pathogens and foreign bodies. The method of the present invention impinges certain resonant frequencies upon water molecules which will be restructured and will send electromagnetic messages to macromolecules like enzymes which then change their vibrational states. The size of the seed, plant, fetus, animal and adult to which the restructured water to be applied or which is to consume the restructured water, changes the requirements for the signal at which the water is resonated. After water is restructured, the restructuring water is subsequently supplied to an organismic system for which the water was prepared.

An organismic system may be generally described as an aqueous solution in which water is mostly well ordered, nearly crystalline (or semi-crystalline). A polarized multi-layer of water was described which can be considered to be in a quasi-crystalline state. Relative order formed "dilute salted water" in the system has entirely different mechanical, chemical, physical behaviors than the normal aqueous solutions. The important role in the living systems of "ordered water" was pointed out in the mid-1960's and was later proved.

At first, it was suggested that ordered water was as much as 50% of the total amount of water in living bodies, but systematic investigations approximated more ordered water than was expected before. One expert, for example, has suggested that at least 95% of the cell water is bonded to fully extended proteins. In other organismic systems, 75% of the cell water was found to be bonded to fully extended proteins.

Current theories teach the conventional membrane-pump model of interaction between water and cells. Pursuant to this model, the bulk of the cell water is normal liquid water, and there is little or no interaction between the bulk-phase water and cell macromolecules. It is believed that this theory is incorrect. The more accurate theory is the

association-induction model proposed by Dr. G. Ling, in which the bulk-phase water in living cells exists as polarized multilayers, interacting strongly and pervasively with intracellular macromolecules; i.e., extended proteins. Of course, it is expected that a more refined polarized-multilayer theory may be developed because there is still a lack of quantitative knowledge about the structural properties of the water molecule (e.g.; the radial distribution function and the space-time correlation function). Dr. Ling's association induction hypothesis is not yet sufficiently detailed to permit a calculation of the Nuclear Magnetic Resonance ("NMR") relaxation times, as well as diffusive properties of cellular water. However, there is sufficient data about the diffusive motion of water molecules in biological systems to make two general qualitative statements: (1) within a cell, the amount of water experiencing reduced diffusive motion is substantial; and (2) the rotational motion of the majority of water molecules in a cell is reduced significantly from that of ordinary water. These principles are consistent with the present invention which is based on the interaction between water and solids within the organismic system which is treated by the restructured water. By beneficially restructuring the water that is supplied to the organismic system, the organismic system is beneficially affected.

It should be evident, therefore, that the present invention takes advantage of the physical properties of water as a solvent which are subject to change when macromolecular structure and/or motion is altered. These changes arise from intrinsic reorientations of biomolecular systems which are secondary to underpinning electromagnetic dispositional states and extrinsic changes in electromagnetic fields. The relationship of matter contained in the cells and the electromagnetic field to which the water is subjected is called superradiance.

Biological systems are held together by long range forces, namely electromagnetic forces in the ground state, i.e., the minimum energy configuration. Coulomb forces are short range forces and cannot account for the order of biosystems. Therefore, static forces acting at short distances are key-lock in type, and cannot account for the property of rigidity in matter, or account for communications in biological matter.

Body interactions are therefore not just the sum of the number of body interactions. Photons are emitted or absorbed during transition of energy states of atoms. When there are many particles in the unit volume super-radiance is the quantum result without any classical

analog. Spontaneous fluctuations in atoms induce force fluctuations in other atoms which refer to phase coherence in the ground state. Photons are a commonwealth and cannot be traced back to any particular atom. Rather, photons are convicted and energy is lost. Although photon frequency decreases, photon momentum is unchanged. Photons are thus not radiated. Fields beyond a density threshold are trapped in biological matter. Photons with definite oscillations are shared among many particles. Thus, all the particles are compelled to oscillate according to the phase of the photons. The foregoing occurs as the particles of a gas move closer together.

The sides of coherence domains are the wavelengths of photons. According to the formulas:

$$\left(\text{wavelength}\right)\ \lambda = \frac{h}{mv} = \frac{mc^2 \cdot t}{mv} \text{ and } f = \frac{mc^2}{mvl},$$

f decreases as l increases, that is the photons are shared by greater numbers of particles. Momentum remains the same. Energy is therefore given off as the electromagnetic field assumes a minimum energy configuration, and the photons serve as glue for the condensed system.

When the biosystem changes, photons are emitted resulting, for example, in bioluminescence. The gain of energy is proportional to density. Particles stop collapsing only when they meet the repulsive hard core forces i.e., the impenetrability of matter. The only task of this field is to keep the particles in phase without producing any work. Thus, the second principle of thermodynamics is not violated and spontaneous creation of order in the ground state occurs. Congruent and coherent oscillatory trajectories or vibrational states whether rotational and/or translational are shared by aggregations, groups, strings, or clusters of molecules e.g., water which produce the ordering and cooperativity of systems.

The earth rotates at approximately 1000 mi/hour and orbits the sun at 18.5 mi/sec and moves through the local star cluster toward the bright star Vega with the solar system at about 12mi/sec. The local cluster of stars takes part in the rotation about the center of our galaxy at an average speed of 200 miles per second. Similarly, groups, collections, strings or polarized layers of water molecules maintain numerous frequencies of vibrational modes and relative motions simultaneously. Likewise, resonating water molecules with a variety

of magnetic flux densities and frequencies will engender vibrational patterns or periodicity or clusters in sets or clusters of molecules that can be retained for some time only to interact with macromolecular complexes once ingested into a biological system as the solvent relates and communicates with solute particles thus inducing phase coherence and adjustments of electrophysiological states and biochemistry. The force between particles in a liquid or solid (condensed matter) depends upon how many particles share a common phase. Because it represents an atypical coherence domain in water, the force between particles is directly proportional to the number of molecules as compared to the force in vacuo, where there is only a small force between a small number of molecules.

In vacuo, the dominant force is the static force, and in condensed systems the dominant force is the radiated force. Moving from the gaseous state to the liquid state the density of water is 1600 times greater, thus increasing the force between molecules accordingly. In renormalizing frequency electromagnetic field is trapped in the ground state while (mv) remains the same. When momentum (mv) is renormalized the trapped light will come out e.g., bioluminescence. Light will be emitted by biosytems (e.g. sono-luminescence) when sound waves are produced in the system. From the antinode of the stationary wave light is emitted. The frequency of the emitted light depends upon the liquid. Each liquid has its own frequency. Biosystems have many frequencies contained by the solvent. Collapsing bubbles affect temperature (a diabatic compression) in applying van der Waals equation, p molecules are excited and light is emitted.

Yet, carbonation is not the only explanation of sonoluminesence. Thousands of particles firing their photons synchronously into a short time interval in coherence domains accounts for light being emitted from a pressure wave, i.e., sound. Trapped light of superradiance is explicable through an understanding of aggregations of molecules maintaining phase coherence. Various frequencies in water with multi-polarized layers refer to collective processes. In liquids it is the electrons which move coherently. Electrons compel nuclei to stay at fixed distances, but not a fixed place in water. Solids appear when we get superradiance of nuclei.

Consider for example, two foreign molecules A and B entering into water from outside the system. In the spectra of A and B, there are frequencies W_A and W_B which are equal and equal to the common superradiance of water (renormalized frequency). Since the

field depends upon frequency and since these molecules contain the code of recognition of frequency these molecules are not distinguishable from water. Frequency is the natural language of the molecules. The two body attraction is magnified by the larger number of particles as the water attraction. The attraction between A and B while in water is highly magnified. When a third molecule C is introduced into the water which is unable to co-resonate with water, C does not have in its own spectrum or frequency propensity for recognition of the pattern. A and B will interact strongly while in water and not C. The chemical pattern in this way is governed by the superradiant behavior of the solvent, which is able through this mechanism to select interacting molecules on the basis of pattern recognition which is the code of frequency.

Consider, however, 3 molecules A, B and C, each one having 2 possible frequencies in their spectra. If that water has now 2 superradiances and WA=WB, A and B will interact strongly and not C. Without touching A, B and C the superradiance of water can change for example, if in this case, the equality changes between B and C and not A then WB=WC. Thus, the chemistry would suddenly change. B and C would attract strongly, and A would not attract.

In this example, A, B and C did not change at all. Rather, the water changed. Since we can affect the properties of the solvent without touching the solute we can dramatically change the chemistry of the solute just by changing the frequency at which super-radiance could occur. In biosystems we have ordered patterns of reactions and we can regulate these reactions by restructuring water with magnetic signals having physiologic amplitudes and frequencies for water, the selection at each given time of which molecules will interact strongly controls cooperating of systems.

When there is disease the order of biochemical maturity is altered. It is possible to reorder the pattern by introducing resonated water with codes for frequencies to restore the proper biochemistry to the biosystem. Or, in the case of giving resonated water to plants we may regulate the various processes that regulate growth and repair. Furthermore, in this manner of giving resonated or restructured water to biosystems we may even regulate genetic information transfer as well as the susceptibility of an organism to foreign interaction, e.g., alter the immune responses. When biological systems are poisoned, cavities increase and more light is lost.

In order to understand the present invention, one may envision a living system as an aggregation of atoms which share ubiquitous photons (quanta of light) which serve as the "glue of matter". These photons are bound in the ground state where they will remain due to the long range force of matter. Since living systems are composed of coherent charged states and cooperative systems, restructuring the solvent, namely the water, in the living systems changes the molecular vibrational frequencies of the living system itself.

It is possible to regulate the structure of water and thereby induce critical molecules like genes, enzymes, neurotransmitters, antibodies and hormones to restructure by changing the spin angular momenta of electrons and protons with externally sourced picotesla range, physiologic fields. When pathophysiological states occur, there are biophotonic emissions, or the release of the radiant quanta which regulated coherence and communications. If water within cells and in tissues is organized, then the organization of water is sensitive to the physiological and pathophysiological states of cells and tissues. When water is treated with electromagnetic fields corresponding to normal magnetic profiles in humans, animals and plants and ingested by these systems, there occurs systemic reorganization of superradiances: frequencies of vibrational modes through which constituents communicate to improve total function of the living system. Therefore, the consumed water affects the solutes which it comes into contact with and vice versa. The affect is therefore multidirectional -- water affecting solids and solids affecting the water. Additionally, human tissue is piezoelectric, that is mechanical vibrations are converted into electromagnetic oscillations and vice versa. Therefore, vibrational modalities of molecules of water, as well as macromolecular systems, will enhance mutual coherence domains so all the constituents of the system will be correlated as they come into contact with each other.

Consumption of organized or coherent water molecules will reorganize the particles of the solute (critical molecules) to produce increase in coherence domains, improved communications between the various atomic constituents of living systems and improve health. Consumption of electromagnetically treated water therefore improves health as these water molecules take their places as solvent in the living systems.

The living process involves the gradual loss of the electron energy of incoming compounds (nutriments, foods) by a multi-step oxidation having very little energy changes in a single step. The typical metabolic energy-step is in the range of the hydrogen-bridge

bond. Consequently, it is possible to rearrange the water structure.

Water is an excellent solvent, a catalyst for many chemical reactions, a good storehouse for both heat and cold, and a poor electrical conductor when pure. The unique properties of water are based on its unusual structure and on the polarity of its molecule. Adding ions to water as trace metals adds to the capacity for reactivity. The water molecule's angular structure is shown in Figure 1. The hydrogen atoms are about 1 angstrom unit away from the oxygen atom, bound to it by covalent bonds. Each covalent bond is due to the mutual sharing of a pair of electrons between each hydrogen and the oxygen. However, the sharing is unequal because an oxygen atom is considerably more electronegative than a hydrogen atom. The oxygen atom is able to pull both electron pairs much closer to it. The oxygen has a partial positive charge. Although the water molecule as a whole is electrically neutral, it is highly polar: that is, it has a negatively charged pole (at the oxygen atom) and a positively charge pole (centered between the hydrogens). The polarity results from the bent shape of the molecule and the distribution of electrical charges within it.

Figure 2 represents water states in living systems. It also shows geometrical frustration in three dimensions, where (a) breathing like, and (b) tilting like, changes the icosahedral cluster. Note that we may change the physical properties, for example the dielectric constant, of a material; e.g., water, without changing the composition (only the microscopic ordering) of the medium itself.

Figure 3 shows the dynamic solution of the tessellation by regular pentagons: α β and γ are possible distortions of the five-fold symmetry, thus becoming non-regular units. With γ the regular five-fold symmetry is kept; the geometric frustration causes the units to vibrate (if these units are composed of water, the hydrogen bridges will vibrate).

Figure 4 shows the proper tessellation on the plain sheet by non-regular pentagons. Ordered states of water reveal coherence in the domains of the quantum world as subatomic particles move in relative translational and rotation modes which are dependent upon the elementary electrical charges which comprise the electromagnetic field - matter.

The solid and aqueous phases of the cytoplasm are the meeting point between biochemistry and biophysics. Water, which includes free water in the cytoplasm, has a peculiar structure, a quasi-crystalline polymeric structure: all its molecules are permanent

dipoles which join labily creating a network of hydrogen bonds. Figures 5 and 6 shows that at 37^0C every water molecule joins another four forming a constantly changing short lived polymeric highly cooperative structure.

Although hydrogen bonds continuously form and disrupt, they give the 'water polymer' a high level of cohesion, which in turn displays certain characteristics - such as high surface tension, high specific heat, and high vaporization heat. Water has a high dielectric constant (E - 80 at 20^0 C) which is correlated to the refraction index and to a high absorption of infrared and microwaves. In ice, which is highly structured water, the dielectric constant is extremely low (E =5).

Water is a statistic assembly of five types of molecules which form 0, 1, 2, 3, or 4 hydrogen bonds per molecule. In this model the hydrogen bonds form and then disrupt and bending must be considered.

Theories on the structure of water postulate the existence of molecular clusters or aggregates. This hypothesis is consistent with the dielectric behavior, which is property pertaining to molecular clusters rather than to single molecules. H_20 molecules connected by hydrogen bonds aggregate in clusters which have an extremely short mean life (10^{-10} - 10^{-11} sec.).

Polarity makes water molecules cluster around ions (Na^+ and Cl^-) and other polar molecules (-COOH) and establish hydrogen bonds with them. Polar molecules are therefore also hydrophile and hydrosoluble (Fig. 6). Apolar molecules break the network of hydrogen bonds, they are hydrophobic and insoluble. They tend to isolate themselves from surrounding water by forming hydrophobic interactions which play a very important functional role.

As well as reacting with ionizing radiation (forming radicals and peroxides), water interacts with non ionizing radiation to produce various conformational changes which are determined by charge distribution, motions of aggregations of clusters of water molecules through space and time, and coherent communications between water and its contained ponderable bodies.

Water forces the hydrophobic groups to aggregate or cluster to minimize the disruptive effect they could have on the H bond network. When hydrophobic groups associate like this, it is often said they are aggregated by "hydrophobic bonds".

As seen in Figure 7, hydrophobic interactions can link molecules (hydrophobic bond). Two or more hydrophobic groups tend to isolate from surrounding water with its polymeric like structure. This mechanism is the possible cause of enzyme-enzyme and enzyme-filament interactions in the sheet of structured water adjacent to the solid state protein structures.

The traditional interpretation whereby intracellular water was seen to have the same characteristics as free water has been reviewed: several experiments prove that a large fraction of intracellular water has properties which differ from those of the pure liquid. Biophysically cytoplasm is considered a gel, consisting of a rich dynamic network of interconnected filaments that give the cytoplasm that stiffness and elasticity without hindering its fluid character.

The relationship between the filament structures of the cytoplasm and water have been studied. We see the cytoskeleton as a solid state dynamic reticulum with a very vast surface, estimated at about 70-90 billion sqnm per cell. Clegg was able to prove experimentally while using several techniques that the water surrounding the cytoskeleton is ordered; that is aligned with polar links on the surface of the proteins. Consequently this means that each cell has a very thin layer of ordered water extending over at least 3 nm from the billions sqnm of solid state surfaces.

We believe through a dipolar mechanism this water can be coupled to the coherent dynamics of the protein solid state, protecting it from thermal dissipation and thus creating favorable conditions for the protein filaments to carry signals.

Biophysicists currently view hyaloplasm (that is MT reticulum + water) as a highly ordered and structurally coherent reticulum of dynamic protein polymers which is closely connected to ordered water through a vast surface; it has a lower level of entropy and a lower dielectric constant compared to the free water far from the reticulum surface.

The biological importance of the juxtafilament structured water becomes apparent when considering the well based hypothesis that all metabolic activities take place on the surface or near the surface of cell ultrastructures, because this means that enzymes operate in a microenvironment which is different from a diluted aqueous solution.

Of the relaxation processes of excited atoms and molecules one must consider

fluorescence, or radiative relaxation, which is quick de-excitation with emission of a photon whose energy is less than that of the incident radiation. Excited molecules can relax by means of a chemical reaction with other excited or non-excited molecules, yielding free radicals, biradicals or stable molecular products. Excited molecules can transfer their excitation energy to other molecules through non-radiative processes (excitons, conformational variations) as well. They can also de-excite in a non-radiative mode by internal conversion of excitation energy into mechanical or vibrational energy which is our goal in utilization of physiologic magnetic fields i.e., the production of stable, balance and homostatic products and processes.

Living systems must be regarded as a unit, since their properties cannot be additively composed from the properties of its parts, and it is not possible to divide living systems into parts carrying the properties of the system. The living reactions are special processes which are cooperative, collective phenomenon expanded over the whole living unit (protein, cell, etc.) depending on the level of the interaction. The cooperativity in the living state is the essence of the phenomenon. Some synchronized effects characterize life (for example, the growth or the dividing of cells) which have to have a general controller in the system. Some cooperative mechanisms have been ascribed to the living state, e.g., chemical, solid-state electronic and ionic transfer, as well as fractional charge-transfer. These phenomenon have succeeded in explaining different special proteins (e.g., enzymes) or whole cells. As another example, ionic concentration (pK) has also been introduced governing and explaining the collectivity of some special process.

The first suggestion of a solid-state type electronic process in living systems as one of the possible collectivity in proteins and DNA was made by Szent-Gorgyi in 1941. An early calculation strongly suggested the existence of a conduction band in proteins. This was later proven experimentally by observing a semi-conductive behavior with a forbidden gap of 2-3 eV. The measured conductivity in wet proteins (there is no effect in dry proteins) supports this conclusion.

The protocol which the water (or other material to be realigned for ingestion into the body of a human, or, abrasion to the body of a human such as a material; e.g., cotton) must be exposed to electromagnetically is determined by the physiologic nature of the signal. That is, the field impinged upon the water molecule, trace metal, foreign body; e.g., virus,

clothing material, cosmic construction block, etc., should be that field which the target element in vivo must experience to maintain order, coherence, cooperativity and coherent oscillatory trajectories of particulate matter composing the body thereto.

The electromagnetic field, focusing upon the magnetic component of the signal may be created by a solenoid, helmholtz coil, plates, free flowing electrical current magnetic components, poloidal magnets, toroidal coils and any other means of producing a homogeneous, isotropic magnetic field to therein induce changes in spin angular momenta of leptons and baryons, thus causing changing magnetic moments, and crystalline restructuring. Since the atoms are spinning permanent magnets, they are susceptible to reorientation by extrinsically sourced magnetic forces. Solenoids and helmholtz coils, plates, poloidal magnets, toroids, free electrical currents all may produce the appropriate EM signals. A solenoidal exposure system or a helmholtz coil exposure system is acceptable to produce a homogeneous isotropic magnetic field to therein rearrange the water molecule itself; i.e., the particles that comprise the atoms that make water may themselves participate in changing charge densities and cooperativity between changing systems or kinetic systems such as our universe.

Figure 8, for example, shows a solenoidal system magnetizing water molecules, preparing the structured water for human consumption. The levels of magnetization are provided in Tables 1, 2 and 3 below. The Jacobson Resonator, described in detail below, produces such an electromagnetic field, and it is preferred to use the Jacobson Resonator to create and control the electromagnetic fields to which the water is subjected.

TABLE 1: Critical molecules used in calculating the amplitude and frequency or desired magnetic field.

	Critical Molecules	Intensity, B (Gauss)	Freq., F (Hz)	Length, L* (cm)	Velocity, V* (cm/s)
1	Spectrin, Brain Specific Fodrin	1.0×10^{-5}	0.15	ML	SS
2	Neurofilaments, L-70kb, Hemoglobin, MAP-70kd	2.5×10^{-6}	71.0	ML	EO
3	Interferon, Leukotrines, Platelet Derived Growth Factor (PDGF)	1.3×10^{-6}	36.0	ML	EO
4	Nerve Growth Factor (NGF), Kinesine	9.97×10^{-7}	27.9	ML	EO
5	Motor Proteins	9.0×10^{-7}	25.2	ML	SC

6	Microtubule Associated Protein (MAP) 2a, 2b	8.25×10^{-7}	23.0	ML	SC
7	Melatonin, Calmodulin, Spectrin, Brain Specific Fodrin	7.0×10^{-7}	19.0	ML	SC
8	IgE	6.2×10^{-7}	17.4	ML	SC
9	Neurofilaments, Calmodulin	5.7×10^{-7}	16.0	ML	EO
10	IgG, Epinephrine	4.6×10^{-7}	12.8	ML	ER
11	Tubulin $\alpha\beta$ dimer	3.4×10^{-7}	3.6	ML	SC
12	IgM (900KD), Dopamine, Norepinephrine, Homeoboxes	2.7×10^{-7}	7.6	ML	SC
13	Neurofilaments L-70KD	2.1×10^{-7}	5.6	ML	SC
14	MAP, G-actin, Calcium ion, Microtubule, Tubulin globular monomer	1.75×10^{-7}	5.4	ML	SC
15	Potassium, Bone Growth Factor (BGF)	1.5×10^{-7}	4.1	ML	SC
16	GAP, Homeoboxes, Iron	1.26×10^{-7}	3.5	ML	ER
17	Serotonin, Interferon, Platelet Derived Growth Factor (PDGF)	9.0×10^{-8}	2.5	ML	SC
18	NGF	7.5×10^{-8}	2.1	ML	SC
19	Calmodulin, Profilin	5.0×10^{-8}	1.4	ML	SC
20	ATP	3.4×10^{-8}	0.952	ML	SS
21	Epinephrine, Serotonin	3.4×10^{-8}	0.952	HL	SS

Table 1: Magnetic field intensities (B) calculated from Eqn (1), and frequency (f) from Eqn (2) using the mass (m) of critically important molecules (total of 14 settings). Note B- and f-values with were calculated by the use of length (l) mice ML, and four different velocities (v): They are: EO earth orbital velocity, ER earth rotational velocity, SS solar system velocity, and SC local star velocity.

#In calculating the magnetic field intensities and frequencies from Equation (1), four different velocities were used. They are Earth Orbital (EO), Solar system (SS), Earth Rotation (ER), Local Star Cluster (SC).

*All of the B- and f- values were calculated using length of mice (ML), except for enpinephrine and serotonin, which was calculated from the length of human (HL).

TABLE 2

Critical Molecules	Intensity, B (Gauss)	Freq., F (Hz)	Length, L* (cm)	Velocity, V# (cm/s)
Motor protein	9×10^{-7}	25.2	ML	SC
IgE	0.2×10^{-7}	17.4	ML	SC

Neurofilaments	2.1×10^{-7}	5.6	ML	SC
NGF	7.5×10^{-8}	2.1	ML	SC
Calmodulin, Profilin	5×10^{-8}	1.4	ML	SC
ATP	3.4×10^{-8}	0.952	ML	SS
Epinephrine, Serotonin	3.4×10^{-8}	0.952	ML	SS

Additional magnetic field intensities (B) calculated from Equation (1), and frequency (f) from Eqn (2) using mass (m) of critically important molecules (total of 20 settings when these 8 are added to 14 settings in Table 1). Note these B- and f-values were calculated with the use of length (l) of mice ML, length (height) of human HL, and two different velocities: They are: SC local star cluster velocity and SS solar system velocity.

TABLE 3

Table For Humans

(Length = 1.7×10^2cm)

Inertial Velocities:	3.22×10^7 cm/s	star cluster (SC)
	2.98×10^6 cm/s	earth orbital (EO)
	4.642×10^4 cm/s	rotational earth (ER)

$\overline{B}$ (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.001	0.028000001	339.321	3619.424
0.002	0.055000001	678.642	7238.848
0.003	0.084000002	1017.963	10858.272
0.004	0.112000002	1357.284	14477.696
0.005	0.140000030	1696.605	18067.120
0.006	0.168000003	2036.926	21716.544
0.007	0.196000004	2375.247	25335.968
0.008	0.224000004	2714.568	28955.392
0.009	0.252000005	3053.889	32574.816
0.010	0.280000006	3393.210	36194.240
0.011	0.308000006	3732.531	39813.664
0.012	0.336000007	4071.852	43433.088
0.013	0.640000070	4411.173	47052.512
0.014	0.392000008	4750.494	50871.936
0.015	0.420000008	5089.815	54291.360
0.016	0.448000009	5429.136	57910.784
0.017	0.478000010	5768.457	61530.208
0.018	0.504000010	6107.778	65149.632
0.019	0.532000011	6447.099	68769.058
0.020	0.560000011	6786.420	72388.480
0.021	0.588000012	7125.741	76007.904

B (microgauss) FIELD	(Hertz) FREQUENCY	target masses in (daltrons) EO	target masses in (daltrons) SC
0.022	0.618000012	7465.062	79627.328
0.023	0.644000013	7804.383	83246.752
0.024	0.372000013	8143.704	86866.176
0.025	0.700000014	8483.025	90485.600
0.026	0.728000015	8822.346	94105.240
0.027	0.756000015	9161.667	97724.448
0.028	0.854000016	9500.988	101343.872
0.029	0.812000016	9840.309	107963.296
0.030	0.840000017	10179.630	108582.720
0.031	0.868000017	10518.951	112202.144
0.032	0.896000018	10856.272	115821.568
0.033	0.924000018	11197.593	119440.992
0.034	0.952000019	11536.914	123060.416
0.035	0.980000020	11876.235	126679.840
0.036	1.008000020	12215.656	130299.264
0.037	1.036000021	12554.877	133918.888
0.038	1.064000021	12894.198	137538.112
0.039	1.092000022	13233.519	141157.538
0.040	1.120000022	13572.840	144776.960
0.041	1.148000023	13912.161	148396.384
0.042	1.176000024	14251.482	152015.808
0.043	1.204000024	15690.803	155835.232
0.044	1.232000025	14930.124	159254.658
0.045	1.260000025	15269.445	162874.080
0.046	1.288000026	15608.766	166493.504
0.047	1.316000026	15978.087	170112.928
0.048	1.344000027	16287.408	173732.352
0.049	1.372000027	16626.729	177351.776
0.050	1.400000028	16966.050	180971.200
0.051	1.428000029	17305.371	184590.624
0.052	1.456000029	17644.692	188210.048
0.053	1.484000030	17984.013	191829.472
0.054	1.512000030	18323.334	196448.896
0.055	1.640000031	18662.655	199068.320
0.056	1.568000031	19001.976	202687.744
0.057	1.596000032	19341.297	206307.168
0.058	1.624000032	19680.618	209926.592
0.059	1.652000033	20019.939	213546.016
0.060	1.680000034	20359.260	217165.440
0.061	1.708000034	20696.581	220784.864
0.062	1.736000035	21037.902	224404.288
0.063	1.764000035	21377.223	228023.712
0.064	1.792000036	21716.544	231643.163
0.065	1.820000036	22066.866	235262.560
0.066	1.848000037	22395.186	238881.984
0.067	1.876000038	22734.507	242501.408

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.068	1.904000038	23073.828	246120.832
0.069	1.932000039	23413.149	249740.256
0.070	1.960000039	23752.470	253359.680
0.071	1.988000040	24091.791	256979.104
0.072	2.016000040	24431.112	260598.528
0.073	2.044000041	24770.433	264217.952
0.074	2.072000041	25109.754	267837.376
0.075	2.100000042	25449.075	271456.800
0.076	2.128000043	25788.396	275076.224
0.077	2.156000043	26127.717	278695.648
0.078	2.184000044	26467.038	282315.072
0.079	2.212000044	26806.359	285934.496
0.080	2.240000045	27145.680	289553.920
0.081	2.268000045	27485.001	293173.344
0.082	2.296000046	27824.322	296792.768
0.083	2.324000046	28163.643	300412.192
0.084	2.352000047	28502.964	304031.616
0.085	2.380000028	28842.285	307651.040
0.086	2.408000048	29181.606	311270.464
0.087	2.436000049	29520.927	314889.888
0.088	2.464000049	29860.248	318509.312
0.089	2.492000050	30199.569	322128.736
0.090	2.520000050	30538.890	325748.160
0.091	2.548000051	30878.211	329367.584
0.092	2.576000052	31217.532	332987.008
0.093	2.604000052	31556.853	336606.432
0.094	2.632000053	31896.174	340225.856
0.095	2.660000053	32235.495	343845.280
0.096	2.688000054	32874.816	347464.704
0.097	2.716000054	32914.137	351084.128
0.098	2.744000055	33253.458	354703.552
0.099	2.722000055	33592.779	358322.976
0.100	2.800000056	33932.100	361942.400
0.101	2.828000057	34271.421	365561.824
0.102	2.856000057	34610.742	369181.248
0.103	2.884000058	34950.063	372800.672
0.104	2.912000058	35289.384	376420.096
0.105	2.940000059	35628.705	380039.520
0.106	2.968000059	35968.026	383658.944
0.107	2.996000060	36307.347	387278.368
0.108	3.024000060	38646.668	390897.792
0.109	3.052000061	36985.989	394517.216
0.110	3.080000062	37325.31	398136.640
0.111	3.108000062	37664.631	401756.064
0.112	3.136000063	38003.952	405375.488
0.113	3.164000083	38343.273	408994.912

B (microgauss) FIELD	(Hertz) FREQUENCY	target masses in (daltrons) EO	target masses in (daltrons) SC
0.114	3.192000064	38682.594	412614.336
0.115	3.220000064	39021.915	416233.760
0.116	3.248000065	39361.236	419853.184
0.117	3.276000066	39700.557	423472.608
0.118	3.304000066	40039.878	427092.032
0.119	3.332000067	40379.199	430711.456
0.120	3.360000067	40718.520	434330.880
0.121	3.388000068	41057.841	437950.304
0.122	3.416000068	41397.162	441589.728
0.123	3.444000069	41736.483	445189.152
0.124	3.472000069	42075.804	448808.576
0.125	3.500000070	42415.125	452428.000
0.126	3.52800071	42754.446	456047.424
0.127	3.556000071	43093.767	459666.848
0.128	3.584000072	43433.088	463286.272
0.129	3.612000072	43772.409	466905.696
0.130	3.640000073	44111.730	470525.100
0.131	3.668000073	44451.051	474144.544
0.132	3.696000074	44790.372	477763.968
0.133	3.724000074	45129.693	481383.392
0.134	3.752000076	45469.014	485002.816
0.135	3.780000076	45808.335	488622.240
0.136	3.808000076	46147.658	492241.664
0.137	3.936000077	46486.977	495861.088
0.138	3.864000077	46826.298	499480.512
0.139	3.892000078	47165.619	50309.936
0.140	3.920000078	47504.940	506719.360
0.141	3.948000079	47844.261	510338.784
0.142	3.976000080	48183.582	513958.208
0.143	4.004000080	48522.903	517577.632
0.144	4.032000081	48862.224	521197.056
0.145	4.060000810	49201.545	524816.480
0.146	4.088000082	49540.866	528435.904
0.147	4.116000082	49880.187	532055.328
0.148	4.144000083	50219.508	535674.752
0.149	4.172000083	50558.829	539294.176
0.150	4.200000084	50898.150	542913.600
0.151	4.228000085	51237.471	546?33.024
0.152	4.258000085	51576.792	550152.448
0.153	4.284000086	51916.113	553771.872
0.154	4.312000086	52255.434	557391.296
0.155	4.340000087	52594.755	561010.720
0.156	4.368000087	52934.076	564630.144
0.157	4.396000088	53273.397	568249.568
0.158	4.424000088	53812.718	571868.992
0.159	4.452000089	53952.039	575488.416

B (microgauss) FIELD	(Hertz) FREQUENCY	target masses in (daltrons) EO	target masses in (daltrons) SC
0.160	4.480000090	54291.360	579107.840
0.161	4.508000090	54630.681	582727.264
0.162	4.536000091	54970.002	586346.688
0.163	4.564000091	55309.323	589966.112
0.164	4.592000092	55648.644	593585.536
0.165	4.620000092	55987.965	597204.960
0.166	4.648000093	56327.286	600824.384
0.167	4.676000094	56686.607	604443.808
0.168	4.704000094	57005.928	608063.232
0.169	4.732000095	57345.249	611682.858
0.170	4.760000095	57684.570	615302.080
0.171	4.788000096	58023.891	618921.504
0.172	4.816000096	58363.212	622540.928
0.173	4.844000097	58702.533	628160.352
0.174	4.872000097	59041.854	629779.776
0.175	4.900000098	59381.175	633399.2
0.176	4.928000099	59720.496	637018.624
0.177	4.856000099	60059.817	640838.048
0.178	4.984000100	60399.138	644257.472
0.179	5.012000100	60738.459	647876.896
0.180	5.040000101	61077.780	651496.320
0.181	5.068000101	61417.101	655115.744
0.182	5.096000102	61756.422	658735.168
0.183	5.124000102	62095.743	662354.592
0.184	5.152000103	62435.064	665974.016
0.185	5.180000104	52774.385	669593.440
0.186	5.208000104	63113.706	763212.864
0.187	5.236000105	63453.027	676832.288
0.188	5.264000105	63792.348	680451.712
0.189	5.292000106	64131.669	684071.136
0.190	5.320000106	64470.99	687690.560
0.191	5.348000107	64810.311	691309.984
0.192	5.376000108	65149.532	694929.408
0.193	5.404000108	65488.953	698548.832
0.194	5.432000109	65828.274	702168.256
0.195	5.460000109	66167.595	705787.68
0.196	5.488000110	66506.916	709407.104
0.197	5.516000110	66846.237	713026.528
0.198	5.544000111	67185.558	716645.952
0.199	5.572000111	67524.879	720265.376
0.200	5.600000112	67864.200	723884.800
0.201	5.628000113	68203.521	727504.224
0.202	5.656000113	68542.842	731123.648
0.203	5.684000114	68882.163	744743.072
0.204	5.712000114	69221.484	7.8362.496
0.205	5.740000115	69560.805	741981.920

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.206	5.768000115	69900.126	745801.344
0.207	5.796000116	70239.447	749220.768
0.208	5.824000116	70578.768	752840.192
0.209	5.852000117	70918.089	756459.616
0.210	5.880000118	71257.410	760079.040
0.211	5.908000118	71596.731	763698.464
0.212	5.936000119	71936.052	767317.888
0.213	5.964000119	72275.373	770937.312
0.214	5.992000120	72614.694	774556.738
0.215	6.020000120	72954.015	778178.160
0.216	6.048000121	73293.336	781795.584
0.217	6.076000122	73832.657	785415.008
0.218	6.104000122	73971.978	789034.432
0.219	6.132000123	74311.299	492653.856
0.220	6.160000123	74650.620	796372.280
0.221	6.188000124	74989.941	799892.704
0.222	6.216000124	75329.262	803512.128
0.223	6.244000125	75888.583	807161.552
0.224	6.272000125	76007.904	810750.976
0.225	6.300000126	76347.225	814370.400
0.226	6.328000127	76686.646	817989.824
0.227	6.356000127	77025.867	821609.248
0.228	6.384000128	77365.188	825228.672
0.229	6.412000128	77704.509	828848.096
0.230	6.440000129	78043.830	832467.520
0.231	6.468000129	78383.151	836086.944
0.232	6.496000130	78722.472	839706.368
0.233	6.524000130	79061.973	843325.792
0.234	6.552000131	79401.114	846945.206
0.235	6.580000132	79740.435	850564.640
0.236	6.608000132	80079.756	864184.064
0.237	6.636000133	80419.077	857803.488
0.238	6.684000133	80758.398	831422.912
0.239	6.692000134	81097.719	865042.336
0.240	6.720000134	81437.040	868661.760
0.241	6.748000135	81776.361	872281.184
0.242	6.776000136	82115.882	875900.608
0.243	6.804000136	82455.003	879520.032
0.244	6.832000137	82791.324	883139.456
0.245	6.860000137	93133.645	886759.880
0.246	6.888000138	83472.966	890378.304
0.247	6.916000138	83812.287	893997.728
0.248	6.944000139	84151.608	897617.152
0.249	6.972000139	84490.929	901236.576
0.250	7.000000140	84830.250	904856
0.251	7.028000141	95169.571	908475.424

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.252	7.055000141	85508.892	912094.848
0.253	7.084000142	85848.213	915714.272
0.254	7.112000142	86187.534	919333.696
0.255	7.140000143	86526.855	922953.120
0.256	7.168000143	86866.176	926572.544
0.257	7.196000144	87205.497	930191.968
0.258	7.224000144	87544.818	933811.392
0.259	7.252000145	87884.139	937430.816
0.260	7.280000146	88223.460	941050.240
0.261	7.308000146	88562.791	944668.664
0.262	7.336000147	88902.102	948289.088
0.263	7.364000147	89241.423	951908.512
0.264	7.392000148	89580.744	955527.936
0.265	7.420000148	89920.065	959147.360
0.266	7.448000149	90259.386	952766.784
0.267	7.476000150	90598.707	966386.208
0.268	7.504000150	90938.028	970005.632
0.269	7.532000151	91277.349	97362.056
0.270	7.560000151	91616.670	977244.480
0.271	7.588000152	91955.991	980863.904
0.272	7.616000152	92295.312	984483.328
0.273	7.644000153	92634.633	988102.752
0.274	7.672000153	92973.954	991722.176
0.275	7.700000154	93313.275	995341.600
0.276	7.728000155	93652.596	998961.024
0.277	7.756000155	93991.917	1002580.448
0.278	7.784000156	94331.238	1006199.872
0.279	7.812000156	94670.559	1009819.296
0.280	7.840000157	95009.880	1013438.720
0.281	7.868000157	95349.201	1017058.144
0.282	7.896000158	95688.522	1020677.568
0.283	7.924000158	96027.643	1024296.992
0.284	7.952000159	96367.164	1027916.416
0.285	7.980000160	96706.485	1031535.840
0.286	8.008000160	97045.806	1035155.264
0.287	8.036000161	97385.127	1038774.688
0.288	8.064000161	97724.448	1042394.112
0.289	8.092000162	98063.769	1046013.536
0.290	8.120000162	98403.090	1049632.960
0.291	8.148000163	98742.411	1053252.384
0.292	8.176000164	99081.732	1056871.808
0.293	8.204000164	99421.053	1060491.232
0.294	8.232000165	99760.374	1064110.656
0.295	8.260000165	100099.695	1067730.080
0.296	8.288000168	100439.016	1071349.504
0.297	8.316000166	100778.337	1072968.928

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.298	8.344000167	101117.658	1078588.352
0.299	8.372000167	101456.979	1082207.776
0.300	8.400000168	101796.300	1085827.200
0.301	8.428000169	102135.621	1089446.624
0.302	8.456000169	102474.942	1093066.048
0.303	8.484000170	102814.263	1096685.472
0.304	8.512000170	103153.584	1100304.896
0.305	8.640000171	103492.905	1103924.320
0.306	8.568000171	103832.226	1107543.744
0.307	8.596000172	104171.547	1111163.168
0.308	8.624000192	104510.868	1114782.592
0.309	8.652000173	104850.189	1118402.016
0.310	8.680000174	105189.510	1122021.440
0.311	8.708000174	105528.831	1125640.864
0.312	8.836000175	105868.152	1129260.288
0.313	8.764000175	106207.473	1132879.712
0.314	8.792000176	106546.794	1136499.136
0.315	8.820000176	106886.115	1140118.560
0.316	8.848000177	107225.436	1143737.984
0.317	8.876000178	107564.757	1147357.408
0.318	8.904000178	107904.078	1150976.832
0.319	8.932000179	108243.399	1154596.256
0.320	8.960000179	108582.720	1158215.680
0.321	8.988000180	108922.041	1161835.104
0.322	9.016000180	109261.362	1165454.528
0.323	9.044000181	109600.683	1169073.952
0.324	9.072000181	109940.004	1172693.376
0.325	9.100000182	110279.325	1176312.800
0.326	9.128000183	110618.646	1179932.224
0.327	9.156000183	110957.967	1183551.648
0.328	9.184000184	111297.288	1187171.072
0.329	9.212000184	111636.609	1190790.496
0.330	9.240000185	111975.930	1194409.920
0.331	9.268000185	112315.251	1198029.344
0.332	9.296000186	112654.572	1201648.768
0.333	9.324000186	112993.893	1205268.192
0.334	9.352000187	113333.214	1208887.616
0.335	9.380000188	113672.535	1212507.040
0.336	9.408000188	114011.856	1216126.464
0.337	9.436000189	114351.177	1219745.888
0.338	9.464000189	114890.498	1223365.312
0.339	9.492000190	115029.819	1226984.736
0.340	9.520000190	115369.140	1230604.160
0.341	9.548000191	115705.461	1234223.584
0.342	8.576000192	116047.782	1237843.008
0.343	9.604000192	116387.103	1241462.432

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.344	9.632000193	116726.424	1245081.856
0.345	9.680000193	117065.745	1248701.280
0.346	9.688000194	117405.086	1252320.704
0.347	9.716000194	117744.387	1255940.128
0.348	9.744000195	118083.708	1259559.552
0.349	9.772000195	118423.029	1263178.976
0.350	9.800000196	118762.350	1266798.4
0.351	9.828000197	119101.671	1270417.824
0.352	9.858000197	119440.992	1274037.248
0.353	9.884000198	119780.313	1277656.672
0.354	9.912000198	120119.634	1281276.096
0.355	9.940000199	120458.955	1284895.520
0.356	9.968000199	120798.276	1288514.944
0.357	9.996000200	121137.597	1292134.368
0.358	10.024000200	121476.918	1295759.792
0.359	10.052000200	121816.239	1299373.216
0.360	10.080000200	122155.560	1302992.640
0.361	10.108000200	122494.881	1306612.064
0.362	10.138000200	122834.202	1310231.488
0.363	10.164000200	123173.523	1313850.912
0.364	10.192000200	123512.844	1317470.336
0.365	10.220000200	123852.165	1321089.760
0.366	10.248000200	124191.486	1324709.184
0.367	10.276000210	124530.807	1328328.608
0.368	10.304000210	124870.128	1331948.032
0.369	10.332000210	125209.449	1335567.456
0.370	10.360000210	125548.770	1339186.880
0.371	10.388000210	125888.091	1342806.304
0.372	10.416000210	126227.412	1346425.728
0.373	10.444000210	126566.733	1650045.152
0.374	10.472000210	126906.054	1353664.576
0.375	10.500000210	127245.375	1357284.000
0.376	10.528000210	127584.696	1360903.424
0.377	10.558000210	127924.017	1364522.848
0.378	10.584000210	128263.338	1368142.272
0.379	10.612000210	128602.659	1371761.696
0.380	10.640000210	128941.980	1375381.120
0.381	10.66800021	129281.301	1379000.544
0.382	10.969000210	129620.622	1382619.968
0.383	10.724000210	129959.943	1386239.392
0.384	10.752000220	130299.264	1389858.815
0.385	10.780000220	130638.585	1393478.240
0.386	10.808000220	130977.906	1397097.664
0.387	10.838000220	131317.227	1400717.088
0.388	10.864000220	131656.548	1404336.512
0.389	10.892000220	131995.869	1407955.936

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.390	10.920000220	132335.190	1411575.360
0.391	10.948000220	132674.511	1415194.784
0.392	10.976000220	133013.832	1418814.208
0.393	11.004000220	133353.153	1422433.632
0.394	11.032000220	133682.474	1426053.058
0.395	11.060000220	134031.795	1429672.480
0.396	11.088000220	134371.116	1433291.904
0.397	11.116000220	134710.437	1436911.328
0.398	11.144000220	135049.758	1440530.762
0.399	11.172000220	135389.079	1444150.176
0.400	11.200000220	135728.400	1447769.600
0.401	11.228000220	136067.721	1451389.024
0.402	11.256000230	136407.042	1455008.448
0.403	11.274000230	136746.363	1458627.872
0.404	11.312000230	137085.684	1462247.296
0.405	11.340002300	137425.005	1465886.720
0.406	11.368000230	137764.326	1469486.144
0.407	11.396000230	138103.647	1473105.568
0.408	11.424000230	138442.968	1476724.992
0.409	11.452000230	138782.289	1480344.416
0.410	11.480000230	139121.610	1483963.840
0.411	11.508000230	139460.931	1487583.264
0.412	11.536000230	139800.252	1491202.688
0.413	11.564000230	140139.573	1494822.112
0.414	11.692000230	140478.894	1498441.536
0.415	11.620000230	170818.215	1502060.960
0.416	11.648000230	141157.536	1505680.384
0.417	11.676000230	141496.857	1509299.808
0.418	11.704000230	141836.178	1512919.232
0.419	11.732000230	142175.499	1518538.656
0.420	11.760000240	142514.820	1520158.080
0.421	11.788000240	142854.141	1523777.504
0.422	11.816000240	143193.462	1527396.928
0.423	11.844000240	143532.783	1531016.352
0.424	11.872000240	143872.104	1534635.776
0.425	11.900000240	144211.425	1538255.200
0.426	11.928000240	144550.746	1541874.624
0.427	11.956000240	144890.067	1545494.048
0.428	11.984000240	145229.388	1549113.482
0.429	12.012000240	145568.709	1552732.896
0.430	12.040000240	145906.030	1556352.320
0.431	12.068000240	146247.351	1559971.744
0.432	12.096000240	146586.672	1563691.168
0.433	12.124000240	146925.993	1567210.592
0.434	12.152000240	147265.314	1570830.018
0.435	12.180000240	147604.635	1574449.440

B (microgauss) FIELD	(Hertz) FREQUENCY	target masses in (daltrons) EO	target masses in (daltrons) SC
0.436	12.208000240	147943.956	1578068.864
0.437	12.236000240	148283.277	1581688.288
0.438	12.264000250	148622.598	1585307.712
0.439	12.282000250	148961.919	1588927.136
0.440	12.320000250	149301.240	1592546.560
0.441	12.348000250	149640.561	1596165.984
0.442	12.386000250	149979.882	1599785.408
0.443	12.404000250	150319.203	1603404.832
0.444	12.432000250	150658.524	1607024.256
0.445	12.460000250	150997.845	1610643.680
0.446	12.488000250	151337.166	1614263.104
0.447	12.516000250	151676.487	1617882.528
0.448	12.544000250	152015.808	1621501.952
0.449	12.572000250	152355.129	1625121.376
0.450	12.600000250	152694.450	1628740.800
0.451	12.628000250	1533033.771	1632360.224
0.452	12.656000250	153373.092	1635979.648
0.453	12.684000250	153712.413	1639599.072
0.454	12.712000250	154051.734	1643218.496
0.455	12.740000250	154391.055	1646837.920
0.456	12.768000260	154730.376	1650457.344
0.457	12.796000260	155069.697	1654076.768
0.458	12.824000260	155409.018	1657696.792
0.459	12.852000260	155748.339	1661315.616
0.460	12.880000260	156087.660	1664935.040
0.461	12.908000260	156426.981	1668554.464
0.462	12.936000260	156766.302	1672173.888
0.463	12.964000260	157105.523	1675793.312
0.464	12.992000260	157444.944	1679412.736
0.465	13.020000260	157784.265	1383032.160
0.466	13.048000260	158123.586	1686651.584
0.467	13.076000260	128462.907	1690271.008
0.468	13.104000260	158802.228	1693890.432
0.469	13.132000260	159141.549	1697509.856
0.470	13.160000260	159480.870	1701129.280
0.471	13.188000260	159820.191	1704748.704
0.472	13.216000260	160159.512	1708368.128
0.473	13.244000260	160498.833	1711987.552
0.474	13.272000270	160838.154	1715606.976
0.475	13.300000270	161177.475	1719226.400
0.476	13.328000270	161516.795	1722845.824
0.477	13.356000270	161856.117	1726465.248
0.478	13.384000270	162195.438	1730084.672
0.479	13.412000270	162534.759	1733704.096
0.480	13.440000270	162874.080	1737323.520
0.481	13.468000270	163213.401	1740942.944

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.482	13.496000270	163552.722	1744562.368
0.483	13.524000270	163892.043	1748181.792
0.484	13.552000270	164231.364	1751801.216
0.485	13.580000270	164570.685	1755420.640
0.486	13.608000270	164910.006	1759040.064
0.487	13.636000270	165249.327	1762659.488
0.488	13.664000270	165588.648	1766276.810
0.489	13.692000270	165927.969	1769898.336
0.490	13.720000270	166287.29	1773517.76
0.491	13.748000270	166606.611	1777137.184
0.492	13.778000280	166945.932	1780756.608
0.493	13.804000280	167285.253	1784376.032
0.494	13.832000280	167624.574	1787995.456
0.495	13.860000280	167963.895	1791614.880
0.496	13.888000280	168303.216	1795234.304
0.497	13.916000280	168642.537	1798853.728
0.498	13.944000280	168981.858	1802473.152
0.499	13.972000280	169321.179	1806092.567
0.500	14.000000280	169660.500	1809712.000
0.501	14.028000280	169999.821	1813331.424
0.502	14.056000280	170339.142	1816950.848
0.503	14.084000280	170678.463	1820570.272
0.504	14.112000280	171017.784	1824189.696
0.505	14.140000280	171367.105	1827809.120
0.506	14.168000280	171696.426	1831428.544
0.507	14.196000280	172035.747	1835047.968
0.508	14.224000280	172375.068	1838667.392
0.509	14.252000290	172714.389	1842286.816
0.510	14.280000290	173053.710	1845906.240
0.511	14.308000290	173393.031	1849525.664
0.512	14.336000290	173732.352	1853145.088
0.513	14.364000290	174071.673	1856764.512
0.514	14.392000290	174410.994	1860383.936
0.515	14.420000290	174750.315	1864003.360
0.516	14.448000290	175089.636	1867622.784
0.517	14.476000290	175428.957	1871242.208
0.518	14.504000290	175768.278	1874861.632
0.519	14.532000290	176107.599	1878481.058
0.520	14.560000290	176446.920	1882100.480
0.521	14.588000290	176786.241	1885719.904
0.522	14.616000290	177125.562	1889339.328
0.523	14.644000290	177464.883	1892958.752
0.524	14.672000290	177804.204	1896578.176
0.525	14.700000290	178143.525	1900197.600
0.526	14.728000290	178482.846	1903817.024
0.527	14.756000300	178822.167	1907436.448

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.528	14.784000300	179161.488	1911055.872
0.529	14.812000300	179500.809	1914675.296
0.530	14.840000300	179840.130	1918294.720
0.531	14.868000300	180179.451	1921914.144
0.532	14.896000300	180518.772	1925533.568
0.533	14.924000300	180858.093	1929152.992
0.534	14.952000300	181197.414	1932772.416
0.535	14.980000300	181536.735	1936391.840
0.536	15.005000300	181876.056	1940011.264
0.537	15.036000300	182215.377	1943630.688
0.538	15.064000300	182554.698	1947250.112
0.539	15.092000300	182894.019	1950869.536
0.540	15.120000300	183233.340	1954488.96
0.541	15.148000300	183572.661	1958108.384
0.542	15.176000300	183911.982	1961727.808
0.543	15.204000300	184251.303	1965347.232
0.544	15.232000300	184590.624	1968966.656
0.545	15.260000310	184929.945	1972586.08
0.546	15.288000310	185269.266	1976205.504
0.547	15.316000310	185608.587	1979824.928
0.548	15.344000310	185947.908	1983444.352
0.549	15.372000310	186287.229	1987063.776
0.550	15.400000310	186626.550	1990683.200
0.551	15.428000310	186965.871	1994302.624
0.552	15.456000310	187305.192	1997922.048
0.553	15.484000310	187644.513	2001541.472
0.554	15.512000310	187983.834	2005160.896
0.555	15.540000310	188323.155	2008780.320
0.556	15.568000310	188662.476	2012399.744
0.557	15.596000310	189001.797	2016019.168
0.558	15.624000310	189341.118	2019638.592
0.559	15.652000310	189??0.439	2023258.016
0.560	15.680000310	190019.760	2026877.440
0.561	15.708000310	190359.081	2030496.864
0.562	15.736000310	190698.402	2034116.288
0.563	15.764000320	191037.723	2037735.712
0.564	15.792000320	191377.044	2041355.136
0.565	15.820000320	191716.385	2044974.560
0.566	15.848000320	192055.686	2048593.984
0.567	15.876000320	192395.007	2052213.408
0.568	15.904000320	192734.328	2055832.832
0.569	15.932000320	193073.649	2059452.256
0.570	15.960000320	193412.970	2063071.78
0.571	15.988000320	193752.291	2066691.104
0.572	16.016000320	194091.612	2070310.528
0.573	16.044000320	194430.933	2073929.952

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.574	16.072000320	194770.254	2077549.376
0.575	16.100000320	195109.575	2081168.8
0.576	16.128000320	195448.896	2084788.224
0.577	16.156000320	195788.217	2088407.648
0.578	16.184000320	196127.538	2092027.072
0.579	16.212000320	196466.859	2095646.496
0.580	16.240000320	196806.180	2099265.920
0.581	16.268000330	197145.501	2102885.344
0.582	16.296000330	197484.822	2106504.768
0.583	16.324000330	197824.143	2110124.192
0.584	16.352000330	198163.434	2113743.616
0.585	16.380000330	198502.785	2117363.040
0.586	16.408000330	198842.106	2120982.464
0.587	16.436000330	199181.427	2124601.888
0.588	16.464000330	199620.748	2128221.312
0.589	16.492000330	199860.069	2131840.736
0.590	16.520000330	200199.390	2135460.160
0.591	16.548000330	200538.711	2139079.581
0.592	16.576000330	200878.032	2142699.008
0.593	16.604000330	201217.353	2146318.432
0.594	16.632000330	201556.674	2149937.856
0.595	16.660000330	201895.995	2153557.280
0.596	16.688000330	202235.316	2157176.704
0.597	16.716000330	202574.634	2160796.128
0.598	16.744000330	202913.958	2164415.552
0.599	16.772000340	203253.279	2168034.976
0.600	16.800000340	203592.600	2171654.4
0.601	16.828000340	203931.921	2175273.824
0.602	16.856000340	204271.242	2178893.248
0.603	16.884000340	204610.563	2182512.672
0.604	16.912000340	204949.884	2188132.096
0.605	16.940000340	205289.205	2189751.520
0.606	16.968000340	205628.526	2193370.944
0.607	16.996000340	205976.847	2196990.368
0.608	17.024000340	206307.168	2200609.792
0.609	17.052000340	206646.489	2204229.216
0.610	17.080000340	206985.810	2207848.640
0.611	17.108000340	207325.131	2211468.064
0.612	17.136000340	207664.452	2215087.488
0.613	17.164000340	208003.773	2218706.912
0.614	17.192000340	208343.094	2222326.336
0.615	17.220000340	208682.415	2225945.760
0.616	17.248000340	209021.736	2229565.184
0.617	17.276000350	209361.057	2233184.608
0.618	17.304000350	209700.378	2236804.032
0.619	17.332000350	210039.699	2240423.456

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.620	17.360000350	210379.020	2244042.880
0.621	17.388000350	210718.341	2247662.304
0.622	17.41600035	211057.662	2251281.728
0.623	17.444000350	211396.983	2254901.152
0.624	17.472000350	211736.304	2258520.576
0.625	17.500000350	212075.625	2262140.000
0.626	17.528000350	212414.946	2265759.424
0.627	17.550003500	212754.267	2269378.848
0.628	17.584000350	213093.588	2272998.272
0.629	17.612000350	213432.909	2276617.696
0.630	17.640000350	213772.230	2280237.120
0.631	17.66800035	214111.551	2283856.544
0.632	17.696000350	214450.872	2287475.968
0.633	17.724000350	214790.193	2291095.392
0.634	17.752000360	215139.514	2294714.816
0.635	17.780000360	215468.835	2298334.240
0.636	17.808000360	215808.156	2301953.664
0.637	17.836000360	216147.477	2305573.088
0.638	17.864000360	216486.798	2309192.512
0.639	17.892000360	216826.119	231281.936
0.640	17.920000360	217165.440	2316431.360
0.641	17.940003600	215704.761	2320050.784
0.642	17.976000360	217844.082	2323670.208
0.643	18.004000360	218183.403	2327289.632
0.644	18.032000360	218522.724	2330909.056
0.645	18.060000360	218862.045	2334528.460
0.646	18.088000360	219201.366	2338147.904
0.647	18.116000360	219540.687	2341767.328
0.648	18.144000360	219880.008	2345386.752
0.649	18.172000360	220219.329	2349006.176
0.650	18.200000360	220558.650	2352825.600
0.651	18.228000360	220897.971	2356245.024
0.652	18.256000370	221237.292	2359867.448
0.653	18.284000370	221576.613	2363483.872
0.654	18.312000370	221915.934	2367103.296
0.655	18.340000370	222255.255	2370722.720
0.656	18.368000370	222594.576	2374342.144
0.657	18.396000370	222933.897	2377961.588
0.658	18.424000370	223273.218	2381580.992
0.659	18.452000370	223612.539	2385200.416
0.660	18.480000370	223951.860	2388819.840
0.661	18.508000370	224291.181	2392439.264
0.662	18.536000370	224630.502	2396058.888
0.663	18.564000370	224969.823	2399678.112
0.664	18.592000370	225309.144	2403297.536
0.665	18.620000370	225648.465	2406916.960

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.666	18.648000370	225987.786	2410538.384
0.667	18.676000370	226327.107	2414155.808
0.668	18.704000370	226666.428	2417775.232
0.669	18.732000370	227005.749	2421394.858
0.670	18.760000380	227345.070	2425014.080
0.671	18.788000380	227684.391	2428633.504
0.672	18.816000380	228023.712	2432252.928
0.673	18.844000380	228363.033	2435872.352
0.674	18.87200038	228702.354	2439491.776
0.675	18.900000380	229041.675	2443111.200
0.676	18.928000380	229380.996	2446730.624
0.677	18.958000380	229720.317	2460350.048
0.678	18.984000380	230059.638	2453969.472
0.679	19.012000380	230398.959	2457588.896
0.680	19.040000380	230738.280	2461208.320
0.681	19.068000380	321077.601	2464827.744
0.682	19.096000380	231416.922	2468447.168
0.683	19.124000380	231756.243	2472066.592
0.684	19.152000380	232095.564	2475686.016
0.685	19.180000380	232434.885	2479305.110
0.686	19.208000380	232774.206	2482924.864
0.687	19.236000380	233113.527	2486544.288
0.688	19.264000390	233452.848	2490163.712
0.689	19.292000390	233792.169	2493783.136
0.690	19.320000390	234131.490	2497402.560
0.691	19.348000390	234470.811	2501021.984
0.692	19.376000390	234810.132	2504641.408
0.693	19.404000390	235149.453	2508260.832
0.694	19.432000390	235488.774	2511880.256
0.695	19.46000039	235828.095	2515499.680
0.696	19.488000390	236167.416	2519119.104
0.697	19.516000390	236506.737	2520738.528
0.698	19.544000390	236845.058	2526357.952
0.699	19.572000390	237185.379	2529977.376
0.700	19.600000390	237524.700	2533596.800
0.701	19.628000390	237864.021	2537216.224
0.702	19.656000390	238203.342	2540835.648
0.703	19.684000390	238542.663	2544455.072
0.704	19.712000390	238881.984	2548074.496
0.705	19.740000390	239221.305	2551693.920
0.706	19.768000400	239560.626	2555313.344
0.707	19.796000400	239899.947	2558932.768
0.708	19.824000400	240239.268	2562552.192
0.709	19.852000400	240578.589	2566171.616
0.710	19.880000400	240917.910	2569791.040
0.711	19.908000400	241257.231	2573410.464

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.712	19.936000400	241596.552	2577029.888
0.713	19.964000400	241935.873	2580649.312
0.714	19.992000400	242275.194	2584268.736
0.715	20.020000400	242614.515	2587888.160
0.716	20.048000400	242953.836	2591507.584
0.717	20.086000400	243293.157	2595127.008
0.718	20.104000400	243632.478	2598746.432
0.719	20.132000400	243971.799	2602365.856
0.720	20.160000400	244311.120	2605985.280
0.721	20.188000400	244650.441	2609604.704
0.722	20.216000400	244989.762	2613224.128
0.723	20.244000200	245329.083	2616843.552
0.724	20.272000410	245668.404	2820482.976
0.725	20.300000410	246007.725	2624082.400
0.726	20.328000410	246347.046	2627701.842
0.727	20.356000410	246686.367	2631321.248
0.728	20.384000410	247025.688	2634940.672
0.729	20.412000410	247365.009	2638580.096
0.730	20.440000410	247704.330	2642179.520
0.731	20.468000410	248043.651	2645798.844
0.732	20.496000410	248382.972	2649418.368
0.733	20.524000410	248722.293	2653037.792
0.734	20.552000410	249061.614	2856657.216
0.735	20.580000410	249400.935	2660276.640
0.736	20.608000410	249740.256	2663896.064
0.737	20.636000410	250079.577	2667515.488
0.738	20.651000410	250418.898	2671134.912
0.739	20.692000410	250758.219	2674754.336
0.740	20.720000410	251097.540	2678373.760
0.741	20.748000410	251436.861	2681993.184
0.742	20.776000420	251776.182	2685612.608
0.743	20.804000420	252115.503	2689232.032
0.744	20.832000420	252151.824	2692851.458
0.745	20.860000420	252794.145	2696470.880
0.746	20.888000420	253133.466	2700090.304
0.747	20.916000420	253472.787	2703709.728
0.748	20.944000420	2538112.108	2707329.152
0.749	20.972000420	254151.429	2710948.576
0.750	21.000000420	254490.750	2714588.000
0.751	21.028000420	254830.071	2718187.424
0.752	21.056000420	155169.392	2721806.848
0.753	21.084000420	255508.713	2725426.272
0.754	21.112000420	255848.034	2729045.696
0.755	21.140000420	256187.355	2732665.120
0.756	21.168000420	258526.676	2736284.544
0.757	21.196000420	258865.997	2739903.968

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.758	21.224000420	257205.318	2743523.392
0.759	21.252000430	257544.639	2747142.816
0.760	21.280000430	257883.960	2750762.240
0.761	21.308000430	258223.281	2754381.664
0.762	21.336000430	258562.602	2758001.088
0.763	21.364000430	258901.923	2761620.512
0.764	21.392000430	259241.244	2765239.936
0.765	21.420000430	259580.565	2768859.360
0.766	21.448000430	259919.886	2772478.784
0.767	21.47600043	260259.207	2776096.206
0.768	21.504000430	260598.528	2779717.632
0.769	21.532000430	260937.849	2783337.056
0.770	21.580000430	261277.170	2786956.480
0.771	21.588000430	261616.491	2790575.904
0.772	21.616000430	261955.812	2794195.328
0.773	21.644000430	262295.133	2797814.752
0.774	21.672000430	262634.454	2801434.176
0.775	21.700000430	262973.775	2805053.600
0.776	21.728000430	263313.096	2808673.024
0.777	21.756000440	263652.417	2812292.448
0.778	21.784000440	263991.738	2815911.872
0.779	21.812000440	264331.059	2819531.296
0.780	21.840000440	264670.380	2823150.720
0.781	21.868000440	265009.701	2826770.144
0.782	21.896000440	265349.002	2830389.568
0.783	21.924000440	265688.343	2834008.992
0.784	21.952000440	266027.664	2837628.416
0.785	21.980000440	266366.985	2841247.840
0.786	22.008000440	266706.306	2844867.264
0.787	22.036000440	267045.627	2848486.688
0.788	22.064000440	267384.948	2852106.112
0.789	22.092000440	267724.269	2855725.538
0.790	22.120000440	268063.59	2859344.960
0.791	22.148000440	268402.911	2862964.384
0.792	22.176000440	268742.232	2866583.808
0.793	22.204000440	269081.553	2870203.232
0.794	22.232000440	269420.874	2873822.656
0.795	22.260000450	289760.195	2877442.080
0.796	22.288000450	270099.516	2881061.504
0.797	22.316000450	270438.837	2884680.928
0.798	22.344000450	270778.158	2888300.352
0.799	22.372000450	271117.479	2891919.766
0.800	22.400000450	271456.800	2895539.200
0.801	22.428000450	271796.121	2899158.624
0.802	22.456000450	272135.442	2902778.048
0.803	22.484000450	272474.763	2906397.472

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.804	22.512000450	272814.084	2910016.896
0.805	22.540000450	273153.405	2913636.320
0.806	22.568000450	273492.726	2917255.744
0.807	22.596000450	273832.047	2920875.168
0.808	22.624000450	274171.368	2924494.592
0.809	22.652000450	274510.689	2928114.016
0.810	22.680000450	274850.010	2931733.440
0.811	22.708000450	275189.331	2935352.864
0.812	22.736000450	275528.652	2938972.288
0.813	22.784000460	275667.973	2942591.712
0.814	22.792000460	276207.294	2946211.136
0.815	22.820000460	276546.615	2949830.560
0.816	22.848000460	276885.936	2956449.984
0.817	22.876000460	277225.257	2957069.408
0.818	22.904000460	277564.578	2960688.832
0.819	22.932000460	277903.899	2964308.256
0.820	22.960000460	278243.220	2967927.680
0.821	22.988000460	278582.541	2971547.104
0.822	23.016000460	278921.862	2975166.528
0.823	23.044000460	279261.183	2978785.952
0.824	23.072000460	279600.504	2982405.376
0.825	23.100000460	279939.825	2986024.800
0.826	23.128000460	280279.146	2989644.224
0.827	23.15600046	280618.467	2993263.648
0.828	23.184000460	280957.788	2996883.072
0.829	23.212000460	281297.109	3000502.496
0.830	23.240000460	281636.430	3004121.920
0.831	23.268000470	284975.751	3007741.344
0.832	23.296000470	282315.072	3011360.768
0.833	23.324000470	282654.393	3014980.192
0.834	23.352000470	282993.714	3018599.616
0.835	23.380000470	283333.035	3022219.040
0.836	23.408000470	283672.356	3025838.464
0.837	23.436000470	284001.677	3029457.868
0.838	23.464000470	284350.998	303307.312
0.839	23.492000470	284690.319	3036696.736
0.840	23.520000470	285029.640	3040316.160
0.841	23.548000470	285368.981	3043935.584
0.842	23.576000470	285708.282	3047555.008
0.843	23.604000470	286047.603	3051174.432
0.844	23.632000470	286386.924	3054793.856
0.845	23.660000470	286726.245	3058413.280
0.846	23.688000470	287065.566	3062032.704
0.847	23.716000470	287404.887	3065652.128
0.848	23.744000470	287744.208	3069271.552
0.849	23.772000480	288083.529	3072890.976

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.850	23.800000480	288422.850	3076510.4
0.851	23.828000480	288762.171	3080129.824
0.852	23.856000480	289101.492	3083749.248
0.853	23.884000480	289440.813	3087368.672
0.854	23.912000480	189780.134	3090986.096
0.855	23.940000480	290119.455	3094607.520
0.856	23.968000480	290458.776	3098226.944
0.857	23.996000480	290798.097	3101846.368
0.858	24.024000480	291137.418	3105465.792
0.859	24.052000480	291478.739	3109085.216
0.860	24.080000480	291816.060	3112704.640
0.861	24.108000480	292155.381	3116324.064
0.862	24.136000480	292494.702	3119943.488
0.863	24.164000480	292834.023	3123562.912
0.864	24.192000480	293173.344	3127182.336
0.865	24.220000480	293512.665	3130801.760
0.866	24.248000480	293851.986	3134421.184
0.867	24.276000490	294191.307	3138040.608
0.868	24.304000490	294530.828	3141660.032
0.869	24.332000490	294869.949	3145279.456
0.870	24.360000490	295209.270	3148898.88
0.871	24.388000490	295548.591	3152518.304
0.872	24.416000490	295887.912	3156137.728
0.873	24.444000490	296227.233	3159757.152
0.874	24.472000490	296566.554	3163378.576
0.875	24.500000490	296905.875	3166996.000
0.876	24.528000490	297245.196	3170615.424
0.877	24.556000490	297584.517	3174234.848
0.878	24.584000490	297923.838	3177854.272
0.879	24.612000490	298263.159	3181473.696
0.880	24.620000490	298602.480	3185093.120
0.881	24.668000490	298941.801	3188712.544
0.882	24.696000490	299281.122	3192331.968
0.883	24.724000490	299620.443	3195951.392
0.884	24.752000500	299959.764	3199570.812
0.885	24.780000500	300299.085	3203190.240
0.886	24.808000500	300638.406	3206809.664
0.887	24.836000500	300977.727	3210429.088
0.888	24.864000500	301317.048	3214048.512
0.889	24.892000500	301656.369	3217667.936
0.890	24.920000500	301995.690	3221287.360
0.891	24.948000500	302335.011	3224906.784
0.892	24.976000500	302674.332	3228526.208
0.893	25.004000500	303013.653	3232145.632
0.894	25.032000500	303352.974	3235765.056
0.895	25.060000500	303692.295	3239384.480

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.896	25.088000500	304031.616	3243003.904
0.897	25.113000500	304370.937	3246823.328
0.898	25.144000500	304710.258	3260242.752
0.899	25.172000500	305049.579	3253862.176
0.900	25.200000500	305388.900	3257481.6
0.901	25.228000500	305728.221	3261101.024
0.902	25.256000510	206067.542	3264720.448
0.903	25.284000510	306406.863	3268339.872
0.904	25.312000510	306746.184	3271959.296
0.905	25.310000510	307085.505	3275578.720
0.906	25.368000510	307424.826	3279198.144
0.907	25.396000510	307764.147	3282817.568
0.908	25.424000510	308103.468	3286436.992
0.909	25.452000510	308442.789	3290056.416
0.910	25.480000510	308782.110	3293675.840
0.911	25.508000510	309121.431	3297295.264
0.912	25.536000510	309460.752	3300914.688
0.913	25.584000510	309800.073	3304534.112
0.914	25.592000510	310139.394	3308453.536
0.915	25.820000510	310478.715	3311772.960
0.916	25.648000510	310818.036	3315392.384
0.917	25.676000510	311157.357	3319011.808
0.918	25.704000510	311496.878	3322631.232
0.919	25.732000510	311835.999	3326250.656
0.920	25.780000520	312175.320	3329870.080
0.921	25.788000520	312514.641	3333489.504
0.922	25.816000520	312853.962	3337108.928
0.923	25.844000520	313193.283	3340728.352
0.924	25.872000520	313532.604	3344347.776
0.925	25.900000520	313871.925	3347967.200
0.926	25.928000520	314211.246	3351586.324
0.927	25.956000520	314550.567	3355206.048
0.928	25.984000520	314889.888	3358825.472
0.929	26.012000520	315229.209	3362444.896
0.930	26.040000520	315568.530	3366064.320
0.931	26.068000520	315907.851	3369683.744
0.932	26.096000520	316247.172	3373303.168
0.933	26.124000520	316586.493	3376922.592
0.934	26.152000520	316925.814	3380542.016
0.935	26.180000520	317265.135	3384161.440
0.936	26.208000520	317604.456	3387780.864
0.937	26.236000520	317943.777	3391400.288
0.938	26.264000530	318283.098	3395019.712
0.939	26.292000530	318622.419	3398639.136
0.940	26.320000530	318961.740	3402258.560
0.941	26.348000530	319301.061	3405877.984

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.942	26.376000530	319640.382	3409497.408
0.943	26.404000530	319979.703	3413116.832
0.944	26.432000530	320319.024	3416736.256
0.945	26.460000530	320658.345	3420355.680
0.946	26.488000530	320997.666	3423975.104
0.947	26.516000530	321336.987	3427594.528
0.948	26.544000530	321686.308	3431213.952
0.949	26.572000530	322015.629	3434833.376
0.950	26.600000530	322354.950	3438452.800
0.951	26.628000530	322694.271	3442072.224
0.952	26.656000530	323033.592	3445691.648
0.953	26.684000530	323372.913	3449344.072
0.954	26.712000530	323712.234	3452930.496
0.955	26.740000530	324051.555	3456549.920
0.956	26.768000540	324390.876	3460169.344
0.957	26.796000540	324730.197	3463788.768
0.958	26.824000540	325069.518	3467408.192
0.959	26.885200054	325408.839	3471027.616
0.960	26.880000540	325748.160	3474647.040
0.961	26.908000540	326087.481	3478268.464
0.962	26.936000540	326426.802	3481885.888
0.963	26.964000540	326766.123	3485505.312
0.964	29.992200054	327105.440	3489124.736
0.965	27.020000540	327444.765	3492744.160
0.966	27.048000540	327784.086	3496363.584
0.967	27.076000540	328123.407	3499983.008
0.968	27.104000540	328462.728	3503602.432
0.969	27.132000540	328802.049	3507221.856
0.970	27.160000540	329141.370	3510841.280
0.971	27.188000540	329480.691	3514460.704
0.972	27.216000540	329820.012	3518080.128
0.973	27.244000540	330159.333	3521699.552
0.974	27.272000550	330498.654	3525318.976
0.975	27.300000055	330837.975	3528938.400
0.976	27.328000550	331177.296	3532557.824
0.977	27.356000550	331516.617	3536177.248
0.978	27.384000550	331655.380	3539796.672
0.979	27.412000550	332195.259	3543416.096
0.980	27.440000550	332534.58	3547035.520
0.981	27.468000550	332873.901	3550654.944
0.982	27.496000550	333213.222	3557274.368
0.983	27.524000550	333552.543	3557893.732
0.984	27.552000550	333891.864	3561513.216
0.985	27.580000550	334231.185	3595132.640
0.986	27.608000550	334570.506	3568752.064
0.987	27.636000550	334909.827	3572371.488

B (microgauss)	(Hertz)	target masses in (daltrons)	target masses in (daltrons)
FIELD	FREQUENCY	EO	SC
0.988	27.66400055	335249.148	3575990.912
0.989	27.692000550	335588.469	3579610.336
0.990	27.720000550	335927.790	3683229.760
0.991	27.748000550	336267.111	3586849.184
0.992	27.776000560	336606.432	3590495.608
0.993	27.804000560	336945.753	3594088.032
0.994	27.832000560	337285.074	3597707.456
0.995	27.860000560	337624.395	3901326.880
0.996	27.888000560	337963.716	3604946.304
0.997	27.916000580	338303.037	3608568.728
0.998	27.944000560	338642.358	3612185.152
0.999	27.972000560	338981.679	3615804.586
1.000	28.000000560	339321.000	3619424.000
1.001	28.02800056	339660.321	3623043.424
1.002	28.056000560	339999.642	3626662.848
1.003	28.084000560	340338.963	3630282.272
1.004	28.11200056	340676.284	363391.696
1.005		341017.605	3637521.120
1.006			3641140.544
1.007			3644759.968
1.008			3648379.392
1.009			3651998.816

The (L) length used is 5'8" average human length. This table is used to calculate the appropriate signed parameters for water to treat any condition dependent upon critical molecules of specific molecular weights in accordance with earth orbital velocity, earth's rotational velocity and the star cluster velocity we are in which circles the center of the Milky Way Galaxy.

Applying the principles above, the present invention provides a method which imposes an electromagnetic field upon water and liquid suspensions in the water. The most beneficial flux densities and frequencies may be determined empirically by experimentation. However, more preferably, a flux density and frequency may be calculated using the formula $mc^2 = Bvlq$. In this formula, "m" equals a mass of one of a plurality of targets, e.g., water molecules; "c" equals the speed of light; "v" equals the inertial velocity of the target mass, "l" equals length of the conductive system; and "q" equals unity of charge. Using this equation, it is possible to determine a magnetic flux density (B). The flux density and frequency is then applied to a quantity of water for a

given period of time. After the water has been restructured, it may be applied to an organism or the water may be subjected to any number of additional magnetic fields based on different targets before the water is applied to the organism. Or, the water may be applied to usage in a cosmetic, construction building block. . . etc.

The target masses in biosystems include masses such as oncogenes, homeotic genes, enzymes, hormones, peptide hormone trophic factors, cytokines, interleukins, GAP proteins and centrioles. Additionally, masses of regulatory nature, such as interferon, enzymes and viruses, may also be targeted, as may trace metals such as Ca^{n}, Na^{+}, Mg^{++}, K^{+}, Zn^{+}, Cu^{n}, Fe^{n} and Li^{+}.

The examples below provide calculations for determining the necessary flux density and frequencies necessary to beneficially restructuring water for specific applications. Example 1 provides the calculations and resulting flux densities and frequencies for cleansing the water molecule and leaving the water molecule in an improved state of health and harmony.

EXAMPLE 1

$$mc^2 = BvLq$$

m = mass of water molecule≅ 18 daltons

$$18 \times 1.67 \times 10^{-24} \text{ g} \cdot (1\text{Da}) \times 9 \times 10^{20} \frac{\text{cm}^2}{\text{s}^2}$$

$$= (\text{B}) \cdot 3 \times 10^{6} \text{ (earth orbital velocity)} \frac{\text{cm}}{\text{s}} \; 1.75 \times 10^{2} \text{ cm (human length)}$$

$$\frac{27.1 \times 10^{-3}}{5.25 \times 10^{8}} = \text{(flux density)} = \text{B}$$

5.16×10^{-11} gauss = B for water molecules interacting with the earth's inertial velocity.

$$fjr = 5.16 \times 10^{-11} \cdot 2.79874 \times 10^{7} \qquad (q \textit{ for electron}) \quad 2\pi m \longrightarrow \frac{q}{2\pi m}$$

FJR = Jacobson Resonance = .001456 HZ = FREQUENCY

5.16×10^{-11} GAUSS = FLUX DENSITY

This frequency and flux density is particularly beneficial for treating water for

consumption by humans. Example II shows the calculation of a frequency and flux density which is particularly beneficial for stabilizing water molecules which may be consumed in order to render human physiology in maximum function.

EXAMPLE II

5.16×10^{-11} gauss x 65 = flux density in consideration of earth rotational velocity, about $4.5 \times 10^{4} \frac{cm,}{s}$ or 1000 miles per hour.

3.38×10^{-9} gauss = B (for v = earth rotational)

$f = 3.38 \times 10^{-9} \cdot 2.79874 \times 10^{7} \frac{coul}{9}$

.095 Hertz

3.38×10^{-9} gauss

Example III provides a resulting frequency and flux density which is particularly beneficial for stabilizing water molecules which may be consumed in order to render human physiology in maximum function.

EXAMPLE III

$\frac{5.16 \times 10^{-11}}{13}$ = (B) for solar system velocity

$B = 3.9 \times 10^{-12}$ gauss

$fjr = 3.9 \times 10^{-12} \times 2.79 \times 10^{7}$

1.09×10^{-4} HERTZ

3.9×10^{-12} GAUSS

(B) and *fjr* for vibrating water molecules.

EXAMPLE 4 (Calcium Resonance)

A) $(Ca^{++} - 40.08 \times 1.67 \times 10^{-24} g \times 9 \times 10^{20} \frac{cm^2}{s^2}$

atomic mass (1 Dalton)

$= B \cdot 5.25 \times 10^{8} \frac{cm^2}{s}$ $5.25 \times 10^{8} \frac{cm^2}{s}$ is $3 \times 10^{6} \frac{cm}{s} \times 1.7^{5} \times 10^{2}\ cm$

(EO) earth orbital velocity — human (L)

$$\frac{602.7 \times 10^{-4}}{5.25 \times 10^{8}} = B$$

$$= \underline{1.15 \times 10^{-10} \text{ gauss}}$$

$fjr = 1.5 \times 10^{-10}$ gauss $\cdot$ 760 coul / g 760 coul/g $= \frac{g}{2\pi m}$ for Ca^{++}

$$= \underline{8.74 \times .10^{-8} \text{ Hz}}$$
(calcium)

B) $$fjr = \frac{1.5 \times 10^{-10} \text{ gauss} \cdot 1.5 \times 10^{4} \text{ coul / g}}{(B) \qquad (\text{proton})} \left(\frac{q}{2\pi m} \text{ for } \frac{p^{+}}{\text{proton}} \right)$$

$$= \underline{1.725 \times 10^{-6} \text{ Hz}}$$
(proton)

C) $fjr = 1.15 \times 10^{-10}$ G $\cdot$ 2.79×10^{7} coul / 9
(electron)

$3.2 \times 10^{-3} = .0032$ Hz

Thus, when $B = 1.15 \times 10^{-10}$ G, fjr may be 8.7×10^{-8} Hz, 1.7×10^{-6} Hz, or .0032 Hz — 3 frequencies for $B = 1.15 \times 10^{-10}$G

Now, consider the vector operator ∇ (*del*) defined by

$$\nabla \equiv i\frac{\partial}{\partial \chi} + j\frac{\partial}{\partial \gamma} + k\frac{\partial}{\partial z} \quad \ldots \quad (27)$$

Then if $\phi(\chi, \gamma, z)$ and $A(\chi, \gamma, z)$ have continuous first partial derivatives in a region (a condition which is in many cases stronger than necessary, we can define the following:

$$\text{curl } B = \nabla \times B = \left(i\frac{\partial}{\partial \chi} + j\frac{\partial}{\partial \gamma} + k\frac{\partial}{\partial z}\right) \times (B_1 i + B_2 j + B_3 k)$$

$$= \begin{vmatrix} i & j & k \\ \frac{\partial}{\partial \chi} & \frac{\partial}{\partial \gamma} & \frac{\partial}{\partial z} \\ B^1 & B^2 & B^3 \end{vmatrix} \quad \ldots \quad (28)$$

$$= i \begin{vmatrix} \frac{\partial}{\partial \gamma} & \frac{\partial}{\partial z} \\ B^2 & B^3 \end{vmatrix} - j \begin{vmatrix} \frac{\partial}{\partial \chi} & \frac{\partial}{\partial z} \\ B^1 & B^2 \end{vmatrix} + k \begin{vmatrix} \frac{\partial}{\partial \chi} & \frac{\partial}{\partial \gamma} \\ B^1 & B^2 \end{vmatrix} \quad \ldots \quad (29)$$

$$= \left(\frac{\partial B_3}{\partial \gamma} - \frac{\partial B_2}{\partial z}\right) i + \left(\frac{\partial B_1}{\partial z} - \frac{\partial B_3}{\partial \chi}\right) j + \left(\frac{\partial B_2}{\partial \chi} - \frac{\partial B_1}{\partial \gamma}\right) k \quad \ldots \quad (30)$$

Note that in the expansion of the determinant, the operators $\partial/\partial\chi, \partial/\partial\gamma, \partial/\partial z$ must precede B_1, B_2, B_3.

Jacobson Resonance states, using continuous functions:

$$\frac{c}{qv} \cdot \int mc.dl = \left(\frac{\partial B_3}{\partial \gamma} - \frac{\partial B_2}{\partial z}\right) i + \left(\frac{\partial B_1}{\partial z} - \frac{\partial B_3}{\partial \chi}\right) j + \left(\frac{\partial B_2}{\partial \chi} - \frac{\partial B_1}{\partial \gamma}\right) k \quad \ldots \quad (31)$$

The foregoing expression represents the equivalence of the intrinsic energy of a mass, and the interaction energy resulting from an interaction of a body and magnetic flux or magnetic field vectors.

The present invention also provides a preferred apparatus for applying electromagnetic fields to water as described above. This device is referred to as "The Jacobson Resonator" or the "Resonator". The apparatus is comprised of a signal generator, an attenuator unit, a set of simplified Helmholtz coils, and an application device on which the water to be treated is placed. In order to minimize the distortions of the generated magnetic field, no ferrous metals are utilized in the construction of the coils, application device, and support stand. Some minimal amounts of ferrous metals are used in the construction of an actual embodiment of the Resonator. For example, referring to Figure 10, a bolt (121) on the swivel clamp (123), and the swivel wheels (125) were made of ferrous materials due to strength requirements and cost consideration. However, field uniformity was not significantly affected by this small amount of ferrous metal.

The Jacobson Resonator uses a signal generator to produce a magnetic field. The signal generator produces a magnetic field of the desired amplitude and frequency. In a preferred embodiment, the signal generator is an HP 3325B signal generator manufactured by the Hewlett-Packard Company which is capable of producing signals varying in frequency from DC to approximately 20 Megahertz (Mhz) in square, sinusoidal, and triangle waveforms. The generator is also capable of generating amplitudes from 1 millivolt to 10 volts into a 50 ohm load termination. In order to maintain correct signal relationship, the signal generator should be terminated into a 50 ohm load termination during operation.

Referring to Figure 11, (see diagram for clarity) the attenuator unit (1) uses the signal produced by the signal generator to drive the helmholtz coils. The circuitry is

designed to provide impedance matching to the generator and selectable attenuation of the signal. The attenuation range is from 10 milli gauss to 1 atto gauss by combining the generator range and the attenuator selection ranges. The attenuator (1) has two switches (2), one rotary switch for milli (10^{-3}), micro (10^{-6}), and nano (10^{-9}) selections and one toggle switch (3) for inducing an additional micro (10^{-6}) level of attenuation to the above signal levels. This provides for a total of 10^{-15} signal attenuation. All coils should never be connected directly to the signal generator, as magnetic fields in the gauss range are possible depending on the generator settings.

As will be understood by those of ordinary skill in the art, the values of certain components depicted in Fig. 11 will vary, depending on the sizes of the coil. The magnetic fields are produced by simplified helmholtz coils. The coils may be 18 inches or 7 feet in diameter with a separation of 9 inches or 3.5 feet respectively. The smaller coils (117) are shown in Figure 10. These coils are preferably made of 5 turns of #37 gauge wire around an 18 inch disc made of laminated foam. Additionally, the discs have an epoxy coating, for additional strength, and a black gloss enamel finish. Coil interconnections are made via two pin friction fit connectors **(127)** for ease of mating.

Still referring to Figure 10, the application device **(115)** provides the correct separation and mounting for the coils **(117)**. The device is capable of 180° rotation and 90° pivoting. The application device also has an epoxy coating, for additional strength and rigidity, and a black gloss enamel finish. System interconnections are made via two pin friction fit connectors **(119)** for ease of mating. All connections are keyed to maintain correct polarity of the coils and the field.

The support stand provides 360° rotation of the device with vertical and horizontal movement of approximately 3 feet and the ability to secure the device in any position. This provides extreme versatility in positioning and securing the device. In one embodiment, the support stand is fabricated from PVC with brass hardware for interconnecting the sub-

assemblies.

Using the Jacobson Resonator described above, it is believed that the following settings provide beneficial restructuring of water for application to humans. For Table 4, the Jacobson Resonator is using the "Microgauss" setting and various targets are listed in the first column. In column 2 of Table 3, the amplitude setting is listed which corresponds to a flux density produced by the resonator. The third and fourth columns, respectively, represent the frequencies e^- and p^+. frequency e^- represents the corresponding Jacobson Resonance and ion cyclotron resonance frequency when q is the gyromagnetic ratio of the electron and frequency p^+ corresponds to $\frac{q}{2\pi m}$ of the proton, in the formula $f_{ICR-JR} = \frac{qB}{2\pi m}$

These tables can be used generally with other EM devices when converted into general terms. These settings are for the resonator but can be converted generally. For example,

$10V = 10\mu G$ (microgauss) $= 1 \times 10^{-6}$ gauss or $.7V = .7 \times 10^{-6}G = 7 \times 10^{-7}$ gauss.

TABLE 4

(Human Length (L) = 1.7×10^2cm.)

Includes harmonics target	Amplitude (volts)	Frequency (e^-)	Frequency (p^+)
virus (whole)	10 V - 1×10^{-6} gauss	279.9 Hz	.15 Hz
	9	251	.135
	8.8	246	.132
	7	197	.1
Interferon	6.35	178	.095
Growth factors	5.15	144	.077
Enzymes	4.55	126	.067
Motor proteins	$3.42 - 3.42 \times 10^{-6}$ gauss	95.8	.0513
calmodulin	2.83	78	.042
NGF	2.54	71	.038
kinesine	.997	27.9	.015
Map	.84	23.5	.0126
Spectrin brain specific fodrin	$.7 - 7 \times 10^{-7}$ gauss	19.6	.01

Includes harmonics target	Amplitude (volts)	Frequency (e^-)	Frequency (p^1)
neurofilaments	.57	15.99	.0085
	.457	12.8	.0069
	.343	9.59	.0051
	.33	9.24	
	.32	8.96	
	.31	8.68	
Transforming DNA (oncogenes)	.3	8.4	
homeoboxes	.274	7.677	.0041
hemoglobin	.2	5.6	.003
	.19467	5.448	
	.192	5.36	.0028
	.175	4.9	
	.162	4.53	.00243
BGF, tubulin single rope (homeobox)	.15 - 1.5 x 10^{-7} gauss	4.2	.0023
	.137	3.84	
	.126	3.5	.0019
leukotrine	.1	2.798	.0015
PDGF, interferon	.09	2.52	.00135
	.085	2.38	.00127
	.081	2.27	
NGF	.078	2.1	
	.0667	2.01	
	.06	1.68	
melatonin	.05	1.4	
calmodulin	.04	1.12	(DNA repair .0005)
hormones, epi	.035	.976	
	.02	.56	
	.012	.336	

In Table 5, the Jacobson resonator is placed in the "Nanogauss" setting

TABLE 5

.316V = .316 x 1 x 10^{-9} gauss= 3.16 x 10^{-10} gauss

	10 V = 10^{-8} gauss	.28 Hz
	8.6	.24
	7.8	.218
NGF (solar)	5.9	.16
	3.5 x 10^{-9} gauss	.098
H20	2.99	.09
	1.76	.021
Leukotrines	1.47	.041
	1.195	.033
	.895	.025
melatonin	.667	.02
serotonin	.4937	.0138
epi	.431	.012
norepi	.392	.011
dopamine	.347	.097
histamine	.316	.0885
	3.16 x 10^{-10} gauss	
	.0538	.0015
water	.046	.001288
	4.6 x 10^{-11} gauss	

In Table 6, the Jacobson Resonator is placed in the "Microgauss" setting.

TABLE 6

	Brain grouping	
	.077	2.1
	.076	2.13
	.075	2.1
	.074	2.072
	.073	2.044
30-40 minutes	.072	2.016
	.071	1.988
	.07	1.96
	.069	1.932
	.068	1.904
	.0667	1.8667
	.0661	1.864
	.065	1.83
	.064	1.8
	Joint Pain Including Bone	
	.2	5.6
	.15	4.1
about	.126	3.5
40	.09	2.5
minutes	.078	2.1
	.05	1.4
	.034	.97
	Headache	
	.038	1.064
	.034	.976
About	.032	.896
40	.03	.84
minutes	.028	.784
	.025	.7

Table 7 list various protocols which have been developed using the Jacobson Resonator for beneficially restructuring water for application to humans to improve the health of the person treated with the restructured water.

TABLE 7 - DEAFNESS

Amplitude	Frequency	Time	
0.077	2.17	2'5'	
0.076	2.13	2'5'	
0.075	2.1	2'5'	
0.074	2.072	2'5'	
0.073	2.044	2'5'	
0.072	2.016	2'5'	
0.071	1.988	2'5'	
0.070	1.960	2'5'	
0.069	1.932	2'5'	
0.068	1.904	2'5'	
0.067	1.866	2'5'	
0.066	1.864	2'5'	
0.065	1.863	2'5'	
0.064	1.80	2'5'	
0.034	0.952	2'5'	
0.033	0.920	2'5'	
0.032	0.890	2'5'	
0.031	0.870	2'5'	
0.030	0.830	2'5'	
0.029	0.800	2'5'	
			TOTAL TIME: 50'

HEADACHE

Amplitude	Frequency	Time	
0.038	1.064	5-15	
0.037	1.063	2'5'	
0.036	1.000	2'5'	
0.035	0.98	2'5'	
0.034	0.952	5	
0.032	0.890	2'5'	
0.031	0.870	2'5'	
0.030	0.830	2'5'	
0.029	0.800	2'5'	
0.028	0.784	2'5'	
0.025	0.700	2'5'	
			TOTAL TIME: 40-50 min.

MIGRAINE

Amplitude	Frequency	Time	
0.034	0.952	5-20	
0.0335	0.937	2'5'	
0.033	0.928	2'5'	
0.0325	0.909	2'5'	
0.032	0.890	2'5'	
0.0315	0.882	2'5'	
0.031	0.870	2'5'	
0.030	0.830	2'5'	
0.029	0.800	2'5'	
0.028	0.780	2'5'	
0.027	0.750	2'5'	
0.026	0.728	2'5'	
0.025	0.700	2'5'	
0.024	0.670	2'5'	
0.023	0.640	2'5'	
0.022	0.620	2'5'	
0.021	0.590	2'5'	
0.020	0.560	2'5'	
			TOTAL TIME: 47'5 - 55 min.

SPRAINED ANKLE

Amplitude	Frequency	Time	
0.343	950	15	
0.274	7.7	15	
0.033	0.920	20'	
0.032	0.890	20'	
			TOTAL TIME: 60 - 70 min.

FLU VIRUS

Amplitude	Frequency	Time	
0.274	7.7	15	
0.200	5.6	10	
0.150	4.1	10	
0.126	3.5	10	
0.090	2.5	5	
0.078	2.1	5	
0.050	1.4	5	
0.034	0.952	5	

TENNIS ELBOW

Amplitude	Frequency	Time	
0.034	0.952	15	
0.274	7.7	15	
0.200	5.6	5	
0.150	4.1	5	
0.126	3.5	5	
0.090	2.5	5	
0.078	2.1	5	
0.050	1.4	5	
0.034	0.952	5	
			TOTAL TIME: 60 min.

OSTEOARTHRITIS ROTULIANA (KNEES)

Amplitude	Frequency	Time	
0.0340	0.952	15-20	
0.457	12.8	5	
0.343	9.6	5	
0.274	7.7	5	
0.200	5.6	5	
0.150	4.2	5	
			TOTAL TIME: 40 - 45 min.

5

RHEUMATOID ARTHRITIS (HANDS)

Amplitude	Frequency	Time	
0.034	0.952	20	
0.457	12.8	10	
0.343	9.6	10	
0.274	7.7	10	
0.200	5.6	10	
0.150	4.1	10	
			TOTAL TIME: 70

WATER

Amplitude	Frequency	Time	
0.457	12.8	30	SKIN, WINE, PLANTS
0.075	2.1	35	SKIN
0.15	4.1	35	LAXATIVE, PLANTS, CEMENT
0.034	0.952	40	RELAX
0.15	4.1	30	PLANTS, WINE
0.075	2.1	25	COSMETICS
0.075	2.2	15	BEER
0.075	2.1	15	CANNED FRUITS
.274	7.7	25	WINE, ENERGY, PLANTS

NEUROPATHY OF THE FOOT

Amplitude	Frequency	Time	
Reducing tension in tissue			
.034	.952	5	
.274	7.70	5	
.033	.92	5	
Once you go over 5 minutes, you are changing rhythms.			
.20	5.6	6	
If pain is in the sole of metatarsals, need more # in .033 range.			
.032	.89	15	
Does pain move from sole to heel? Use heel or bone #'s.			
.274	7.7	4-7	
Is pain just in sole?.			
.033	9.8	8-10	
		TOTAL TIME:	44 min.

PAIN IN FOOT - Plantar Fascitis, Neuropathy, Tarsal Tunnel

Amplitude	Frequency	Time	
FOR SOFT STRUCTURES			
.031	.867	5-6	
.03	.84	5-6	
FOR HARD STRUCTURES			
.078	2.1	5	
.126	3.5	5	
.15	4.2	5	
.457	12.8	4-5	If left too long, pain will increase
.457	.0069	4-5	
.57	15.99	4-5	If too much tension builds in soft tissue, use .0085
.7	19.6 or .01	3	
.84	23.5 or .013	3	

PAIN IN FOOT FROM PLANTAR FASCITIS, NEUROPATHY, TARSAL TUNNEL

Amplitude	Frequency	Time	
*Best sequence for feet			
.033			
.274			
.032			
.2			
.031			
.15			
.03			
.126			
If needed			
.343	9.8		
.033			
.457			
.032			
.57		2-3	
.7		2-3	
.84		2-3	
.033			

Generally, it is better to move from low to high and keep going back and forth rather than to use big frequencies for too long. If you don't release the foot from big frequencies, you will increase the pain in the soft tissues.

PARKINSON DISEASE PROTOCOL

*If there is any pressure in the head, move to .033ug at .92 hz until the pressure subsides or disappears.

TREAT SIDE TO SIDE

Amplitude	Frequency	Time	
.077	2.17	3.50	
.076	2.13	3.50	
.075	2.10	3.50	
.074	2.07	3.50	
REST FOR 20-30 MINUTES			
TREAT FRONT TO BACK			
.075	2.10	3.5	
.074	2.07	3.50	
.073	2.04	3.50	
.072	2.02	3.50	
			TOTAL TREATMENT TIME: 28 min.

CEREBRAL PALSY PROTOCOL

Amplitude	Frequency	Time	
.034	.952 or .976	10	*or 15 minutes UE and LE to decrease spasticity
.033	.92	10	(not for brain exposure in small resonator but for focused field on limbs)
.032	.9	10	
Other numbers are			
.457	12.8	1.5	}
.343	9.6	1.5	}
.274	7.7	1.5	} For large resonator for full body exposure
.2	5.6	1.5	}
.15	4.2	1.5	}
.075	2.1	5.5	}
			TOTAL TREATMENT TIME: 43 min.

Always end a .034 at .952 for 20 minutes to decrease rigidity and facilitate good sleeping. Watch carefully on head. If pressure wave develops, drop down to .075 from any number. If pressure persists, drop to .033 @ .92 for 5-10 minutes. Use .033 on head only when necessary (does not help cognition). Generally 10-12 minutes @ .075 on head is excellent.

ALZHEIMER'S DISEASE PROTOCOL

*If there is a pressure wave in the head, balance with .033ug at .92 hz or .032 at .89 hz until the pressure subsides or disappears.

Amplitude	Frequency	Time
.077	2.17	4
.076	2.13	4
.075	2.1	4
.074	2.07	4
REST FOR 20-30 MINUTES		
.075	2.1	4
.074	2.07	4
.073	2.04	3
.072	2.02	3

ATTENTION DEFICIT DISORDER

Amplitude	Frequency	Time
SIDE TO SIDE		
.076	2.05	4
.075*	2.10	4
.074	2.0	4
REST		30
FRONT TO BACK		
.076	2.05	4
.075	2.10	4
.074	2.0	4

*MAJIC NUMBER FOR CALMING KIDS/TUNES IN NERVE GROWTH NUMBER. Some researchers use .075 @ 2 hz.

ADDITIONAL HEADACHE SETTINGS

Amplitude	Frequency	Time
.038	1.064	setting is rarely used; for thick, heavy skull
.034	.976	8-10
.033	.952	8-10
.032	.92	10-30
.031	.89	10
.03	.84	5-10
.028	.784	5-10
.025	.7	5-10

Migraine protocol

Treat 30-40 minutes side to side then front to back

*Most headaches go away at .031 at .87

Amplitude	Frequency	Time	
.034	.952	5-15	
If pain decreases, leave longer at .034			
0.033	.92	10-15	
.032	.89	10	
*.031	.87	10-15	
If continues to subside, leave at .031			
.03	.83	5	
.029	.8	5	
.028	.78	5	
.027	.75	5	
.026	.73	5	
.025	.7	5	
.024	.67	5	
			TOTAL TREATMENT TIME: 60+

UNMOTIVATED, LOST AND APATHETIC PROTOCOL

Amplitude	Frequency	Time	
FRONT TO BACK			
.06	1.68	8	
.05	1.4	8	
.0428	1.2	8* great results for men	
.0464	1.3	8* great results for women	
SIDE TO SIDE			
.075	2.1	3	
.0428	1.2	7	
REEVALUATE. If patient's mood elevates, stop. If patient is still sluggish, do			
.075	2.1	4	
.05	1.4	4	
If there is any pressure, go to			
.033	.92	until pressure is gone	
.0428	1.2 (men	5	
.0464	1.3 (women)	5	
			TOTAL TREATMENT TIME: 50 min.

TENDINITIS OF THE ELBOW (and MUSCLE SPASM)

Amplitude	Frequency	Time	
.034	.952	20	
It still has pain go to:			
.033	.92	10-15	
.343	9.8	6-8	
.032	.89	5-10	*relax before going back up
.274	7.7	15-20	
.2	5.6	5-10	
.034	.952	5-15	
.15	4.2	extra 10 minutes if necessary	
.034	.952	20-30	
			TOTAL TREATMENT TIME: 85 min.

Times can be cut but .034 and .274 are the critical signals. .034 at .952 is used to reduce tension.

.274 at 7.7 is used to reduce pain. If pain doesn't decrease after 30-40 minutes of weak signals then try some plain numbers. A muscle spasm usually doesn't need pain numbers; but, longstanding tendinitis does after 25-30 minutes.

MIGRAINE HEADACHE PROTOCOL

Amplitude	Frequency	Time	
.034	.95	10	
.033	.92	10	
.032	.9	10	
.031	.87	10	
.03	.84	10	
.027	.72	10	
			TOTAL TREATMENT TIME: 50 min.

Extend treatment time on any signal that seems to work the best.

OTHER NUMBERS PARKINSON'S DISEASE, ALZHEIMERS AND MULTIPLE SCLEROSIS

Amplitude	Frequency	Time
Side to Side		
.077	2.17	4
.076	2.13	4
.075	2.10	4
.074	2.07	4
Front to Back		
.073	2.04	4
.072	2.02	4
.071	1.99	4
.070	1.96	4
32 minute treatment every other day		
Treat 3X week for 2-3 weeks then reevaluate.		
ADD MORE SIGNALS		
.069	1.93	3
.068	1.90	3
.067	1.87	3
.066	1.86	3

CANCER and AIDS
Parkinson disease may possibly have pressure.
M.S. and Alzheimer's most likely will not have pressure.
Any pressure, drop to .033 or .032 until pressure goes away.

Large Resonator - full body immersion in field.

FIELD STRENGTH (micro-gauss)	FREQUENCY (hz)	TIME (minutes)	
1.0 ug	27.9 hz	1 min	3
.82 ug	23.0 hz	1 min	3
.72 ug	20.16 hz	1 min	3
.654 ug	18.2 hz	1 min	2
.57 ug	16.0 hz	1 min	2
.475 ug	12.8 hz	1 min	2
	REST PERIOD	3 min	
.343 ug	9.59 hz	2 min	3
.274 ug	7.68 hz	5 min	6
.200 ug	5.6 hz	4 min	5
.175 ug	4.9 hz	2 min	3
	REST PERIOD	6 min	
.150 ug	4.2 hz	6 min	7

FIELD STRENGTH (micro-gauss)	FREQUENCY (hz)	TIME (minutes)	
.126 ug	3.5 hz	3 min	6
.115 ug	3.15 hz	1 min	2
.090 ug	2.52 hz	4 min	5
.075 ug	2.1 hz	8 min	10
	REST PERIOD	10 min	
.050 ug	1.4 hz	3 min	4
.038 ug	1.1 hz	3 min	4
.034 ug	.976 hz	10 min	12
.030 ug	.84 hz	2 min	3
.025 ug	.7 hz	2 min	3
.020 ug	.56 hz	2 min	3

Microgauss Setting

FOR HUMAN NERVE

2.54	71
1.3	36
.997	27.9
.84	23.5
.72	20.16
.654	18.2
.57	16
.5157 (EGF-R)	14.56
.457	12.8
.343	9.6
.274	7.7
.2	5.6
.194	5.45
.175	4.9
.162	4.53
.15	4.2
.137	3.84
.126	3.5
.1	2.8
.09	2.52

TOTAL TREATMENT TIME: 1 hour and 42.5 minutes

Signal Protocol - 41 Signals for human nerve

.078	2.1
.0667	2.01
.06	1.68
.0589 (TGF-OC Precursor)	1.65
.05	1.4
.04	1.12
.038	1.1
.034	.976
.184	.52
.1769	.495
.1168	.3267

Nanogauss Setting (32 Signals in η G)

5.9	.16
2.99	.083
1.76	.049
.895	.025
.667	.02
.494	.014
.431	.0121
.392	.0109
.316	.0089

The examples above use are based on a human length. It is also possible to use the length of a water container. As discussed above, it is also possible to use this procedure to treat organisms other than humans. For such treatment, the length of the organism at the appropriate stage of development is used. The following calculations demonstrate methodologies for determining the proper flux density and frequency for treating plants.

The four inertial velocities that have been used for calculations are as follows:

1. 3.22×10^7 cm/s - star cluster (SC)
2. 2.98×10^6 cm/s - earth orbital (EO)
3. 1.93×10^6 cm/s - solar system (SS)
4. 4.642×10^4 cm/s - earth rotational (ER)

Lengths (Samples)

(1.7×10^2 cm) 1. Human length is about 5'8" (170 cm) L_H

(1.5×10^1 cm) 2. Mouse length is about 15 cm L_M

3. nerve piece length - A) 1.5 cm - 1st experiment in Cornell
lengths of nerve pieces

Note

(Samples of Calculations in Table Form are included)

B) 2 - .7 cm - 2nd + 3rd experiments at Cornell

electron
$q/2\pi m$
2.79×10^7 Coul/gram
proton
$q/2\pi m$
1.5×10^4 Coul/gram

Examples I (Plants)

chlorophyll a(g)
~ 625 Daltons
1.67×10^{-24} g.625
$= 1 \times 10^{-21}$ g
(principal photoreceptor in photosynthesis)
[in eukaryotes and cyano Bacteria]

chloroplast

~ 5 μm long
ellipsoids
5×10^{-6}m =
5×10^{-4}cm
membranous
subcellular
organelle and site
of photosynthesis

$m \times (c^2)$

1×10^{-21}g $\times$ 9×10^{20} cm^2/s^2 = B . 2.98×10^6 cm/s . 5×10^{-4} cm
(v) (L)

$$\frac{9 \times 10^{-1}\ g\ cm^2\ 5^2}{1.5 \times 10^3\ cm^2/s} = B\ ;\ B = 6 \times 10^{-4}\ \text{gauss}$$

$$ficr = qB/n\pi m = 2.79 \times 10^7 \frac{e}{q} . B\ ;\ \text{frequency} = 2.79 \times 10\ .\ 6 \times 10^{-4}$$

If $q/2\pi m$ is for p^+ (proton) instead of e^- (electron) then $q/2\pi m = 1.5 \times 10^4$ c/q instead of 2.79×10^7 c/q

Thus, frequency (ion cyclotronresonance, ICR) = 1.5×10^4 c/q . 6×10^{-4} gauss $f = 9$ Hz

Therefore, the protocol is:

1. 1st week - B = 6×10^{-4} gauss and $f = 9$ Hz or 1.67×10^4 Hz

Then, 2nd week L could be 0.2 cm (length of seed for example)

$$10^{-21}g \times 9 \times 10^{20}\ cm^2s^{-2} = B\ .\ 2.98 \times 10^6\ cm/s\ .\ 2 \times 10^{-1}\ cm$$

$$\therefore B = 1.5 \times 10^{-6}\ \text{gauss}$$

$$f = 2.79 \times 10^7\ .\ 1.5 \times 10^{-6} = 4.2 \times 10^1 = 42\ Hz$$
(e^-)

or

$$f = 1.5 \times 10^4\ .\ 1.5 \times 10^{-6} = 2.25 \times 10^{-2} = .0225\ Hz$$

2. Week #2 - . B = 1.5×10^{-6} gauss at 42 Hz or .0225 Hz

3rd week ; L is increasing ; L = 2cm (arbitrary depends upon growth cycle of plants)

3. $\frac{9 \times 10^{-6}}{6 \times 10^{6}} = B = 1.5 \times 10^{-7}$ gauss

$f = 4.2$ Hz for e^-

(protocol for plants)

B (gauss)	f (Hz)	
6×10^{-4}	9	1st week
1.5×10^{-6}	42	2nd week
1.5×10^{-7}	4.2	3rd week through maturity of fruit

* {See chart which has flux densities in microgauss setting with associated frequencies based i electronic gyromagnetic ratio.

again plants Example II $\frac{\text{seed length}}{0.1\text{ cm}}$

target {~600 Daltons iron protoporphyrin IX}

1×10^{-21} $9 \times 9 \times 10^{20}$ $cm^2/s^2 = B \cdot \underset{(EO)}{4.6 \times 10^4}$ cm/s . $\underset{(L)\ \text{seed}}{0.2}$ cm

1. $\frac{9 \times 10^{-1}}{9.2 \times 10^{3}} = 1 \times 10^{-4}$ gauss = B

1st week

$f = 1.5 \times 10^4 \cdot 1 \times 10^{-4} = 1.5$ Hz $\left(\underset{\text{protonic}}{\text{using } p^+ \ q/2\pi m}\right)$

2. $L \rightarrow 2$cm $B = 10^{-5}$

$f = 15$Hz $\left(\underset{\text{protonic}}{\text{using } p^+ \ q/2\pi m}\right)$

2nd week

3. $L \rightarrow 20$ cm

$B = 10^{-6}$

3rd week $f = 28$ Hz $\left(\underset{\text{electronic}}{\text{using } e^- \ q/2\pi m}\right)$

4. $B = 10^{-7}$

4th week through duration $f = 2.8$ Hz $\left(\underset{\text{electronic}}{\text{using } e^- \ q/2\pi m}\right)$

5

Example II

B (gauss)	*f* (Hertz)
1×10^{-4}	1.5
1×10^{-5}	15 Hz
1×10^{-6}	28 Hz
1×10^{-7}	2.8

* Water should be treated (resonated) for one hour and plants should be water only with resonated water from initiation to maturity of fruit.

Example III

Dog protocol
treat racing heart syndrome (tachycardia)

Water should be resonated for 1 hour	B (gauss)	*f* (Hz)	
(2 days)	3.4×10^{-8}	.952	
(2 days)	3.3×10^{-8}	.92	4 signals to treat dogs with resonated water
(2 days)	3.2×10^{-8}	.89	
(2 days)	3.0×10^{-8}	.80	

A) 8 day treatment - dogs should only be given resonated water (one signal at a time)

or

B) water may be treated with all four signals - 20 minutes for each signal.

To treat humans with multiple signal protocols as indicated on various tables - the patient should drink either:

A) water treated with one signal at a time; in successive days as many as there are signals (1 signal for each day)

B) treat water with entire protocol at one sitting - multiple frequencies imbued in H_20 (each signal should be used to resonate water for the length of time at least (20 minutes).

Table 7, below, gives an example of the settings for the Jacobson Resonator which have demonstrated beneficial nerve regeneration in mice. The information in Table 4 was determined with the Jacobson Resonator placed in the "Microgauss" setting.

TABLE 8 - Nerve Regeneration In Mice

.10	280 or .15
2.54	71
1.3	36
.997	27.9
.825	23
.7	19.6
.57	16
.46	12.8
.34	9.6
.27	7.6
.175	5.4
.15	4.1
.126	3.5
.09	2.5

TABLE 9 - Resonated Water to Enhance Plant Growth

	Amplitude	Frequency	Time
A	0.63	17.6	30
	0.84	23.5	30
	1.0	28	30
B	.15	4.2	30
	.268	7.5	30
	.381	10.68	30
C	6.5	0.975	30
	4.0	0.6	30
	2.0	0.3	30
D	6.5	182	30
	4.0	112	30
	2.0	56	30

It should be understood that the foregoing is illustrative of the instant invention and should not be considered limitative or restrictive thereof. The scope of the invention may be further described within the scope of the attached claims.

Claims

What is claimed is:

1. A method for beneficially restructuring water and the contents thereof, comprising:

subjecting water for a period of time to an electromagnetic field of a specific flux density varying from 10^{-5} to 10^{-21} gauss and a specific frequency varying from 0 hertz to 300 hertz depending on the intended subsequent use of said water, wherein said specific flux density and said specific frequency has been empirically determined to restructure said water such that said water beneficially affects the organism to which the water is subsequently applied.

2. The method of claim 1, wherein said electromagnetic field is determined to impinge upon water or other liquid suspension which is directly correlated to target masses in biosystems.

3. The method of claim 2, wherein after said water is subjected to said electromagnetic field of a specific flux density and specific frequency corresponding to a particular target, said step of subjecting said electromagnetic field of a specific flux density and specific frequency is repeated for each of a plurality of targets.

4. The method of claim 1, wherein said specific flux density and said specific frequency are supplied by the Tables included in this specification.

5. The method of claim 1, wherein the magnetic field is applied to water using a solenoid to which electric power has been applied.

6. The method of claim 1, wherein the magnetic field is applied to water using helmholts coils to which electric power has been applied.

7. The method of claim 1, wherein the magnetic field is applied to water using poloidal magnets to which electric power has been applied.

8. The method of claim 1, wherein the magnetic field is applied to water using toroidial coils to which electric power has been applied.

9. A method for restructuring water and the contents thereof, comprising:

subjecting water to an electromagnetic field of a specific flux density varying from 10^{-5} to 10^{-21} gauss and a specific frequency varying from 0 hertz to 300 hertz depending on the intended subsequent use of said water, wherein said specific flux density and said specific frequency been calculated using the formula using the formula $mc^2 = Bvlq$, wherein

m equals a mass of one of a plurality of targets;

c equals the speed of light;

v equals the inertial velocity of said mass;

l equals length of the organism to which the water will be applied; and

q equals unity of charge, to thereby determine a magnetic flux density (B)

10. The method of claim 9, wherein said electromagnetic field is calculated to impinge upon water or other liquid suspension which is directly correlated to target masses in biosystems.

11. The method of claim 10, wherein after said water is subjected to said electromagnetic field of a specific flux density and specific frequency corresponding to a particular target, said step of subjecting said electromagnetic field of a specific flux density and specific frequency is repeated for each of a plurality of targets.

12. The method of claim 9, wherein the magnetic field is applied using a solenoid to which electric power has been applied.

13. The method of claim 9, wherein the magnetic field is applied to water using a solenoid to which electric power has been applied.

14. The method of claim 9, wherein the magnetic field is applied to water using helmholts coils to which electric power has been applied.

15. The method of claim 9, wherein the magnetic field is applied to water using poloidal magnets to which electric power has been applied.

16. The method of claim 9, wherein the magnetic field is applied to water using toroidial coils to which electric power has been applied.

17. The method of claim 16, wherein said coils have an intercoil distance such that the distance between the coils is greater than the radius of each of the coils having equal diameters, and wherein a relatively uniform magnetic field exists between the coils.

18. The method of claim 9, wherein the magnetic field is applied to water using plates to which electric power has been applied.

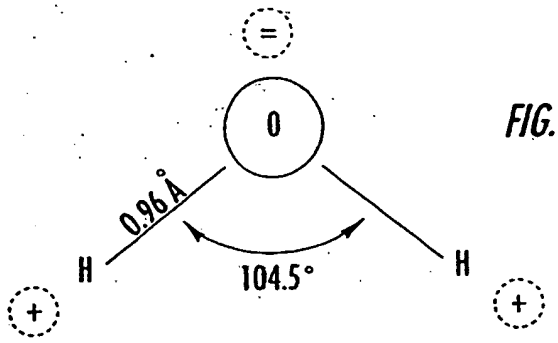

FIG. 1.

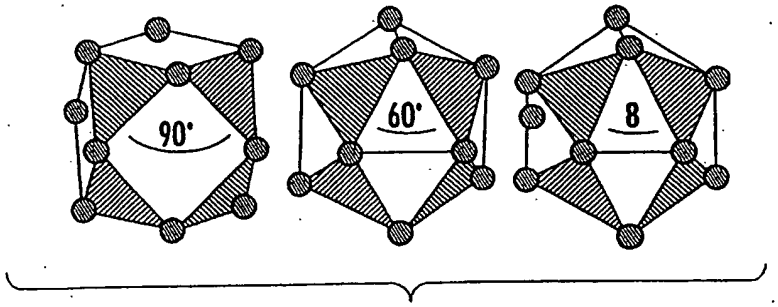

FIG. 2A.

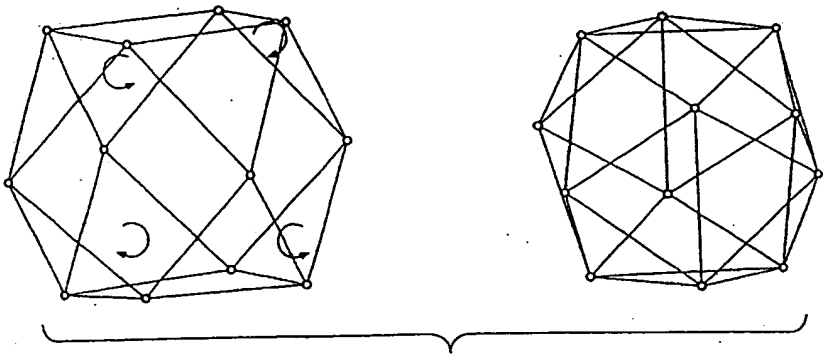

FIG. 2B.

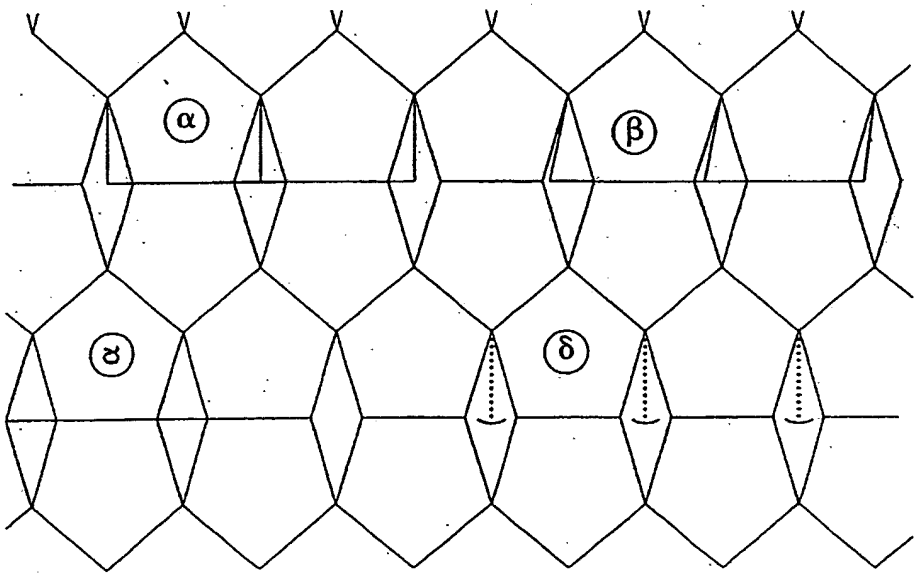

FIG. 3.

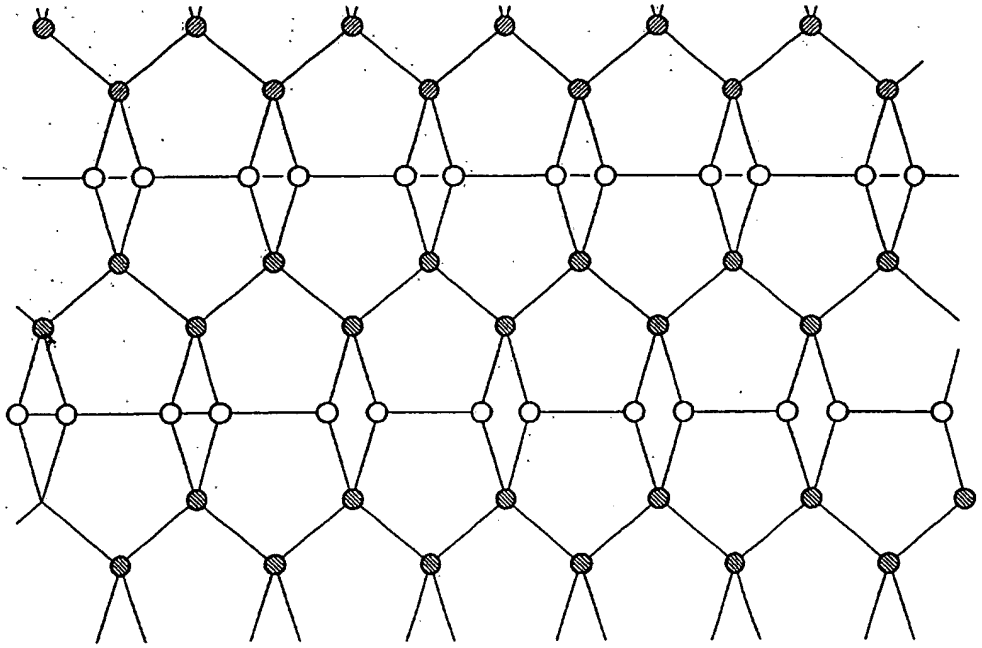

FIG. 4.

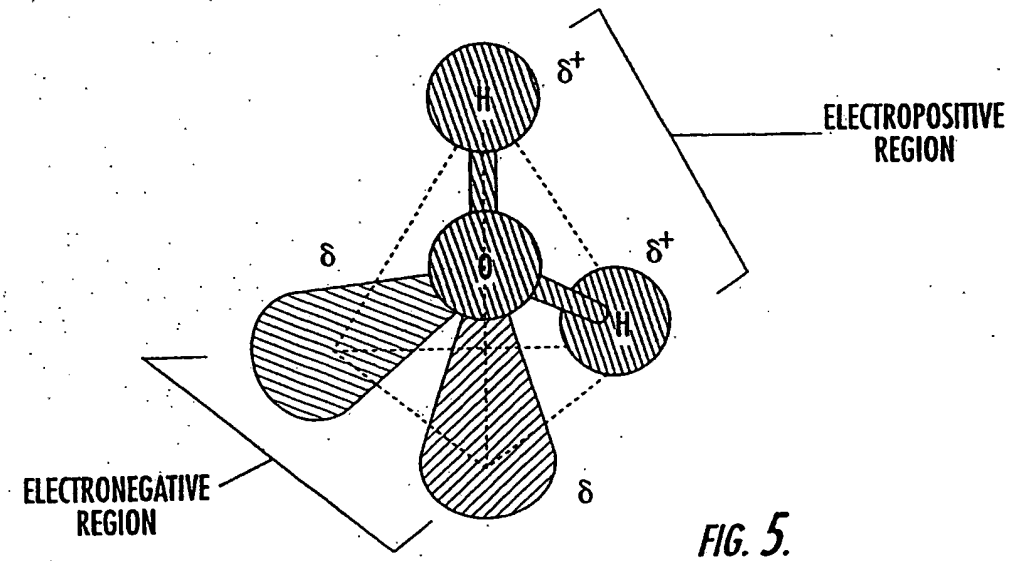

FIG. 5.

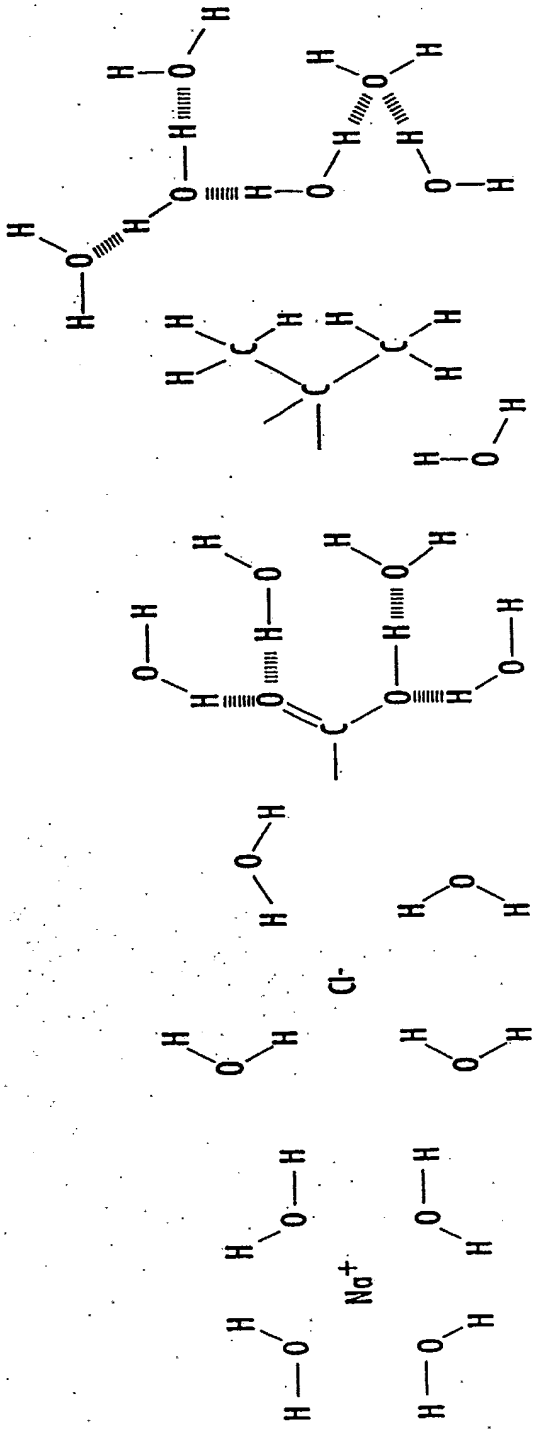

FIG. 6.

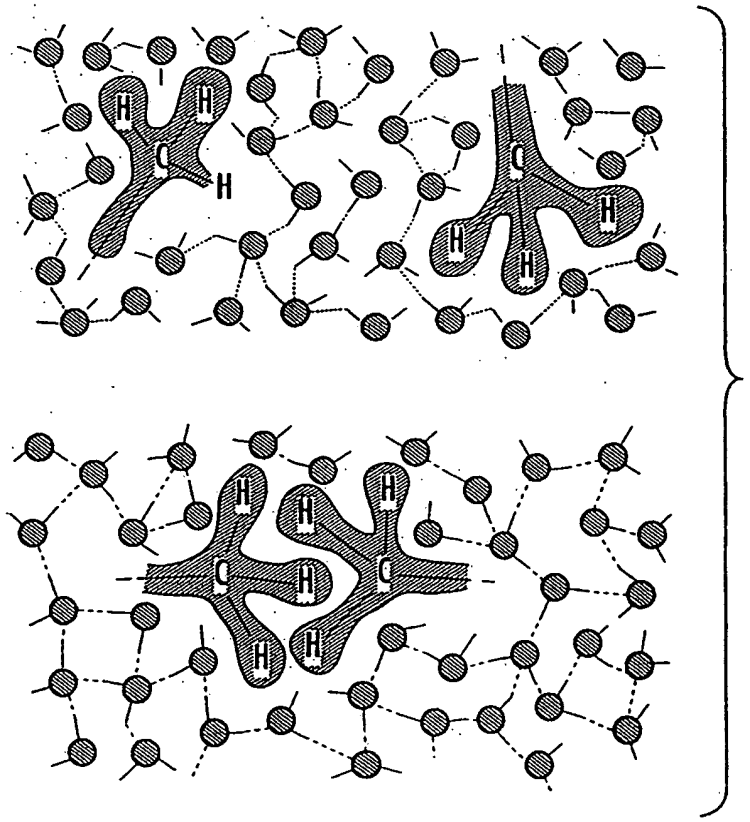

FIG. 7.

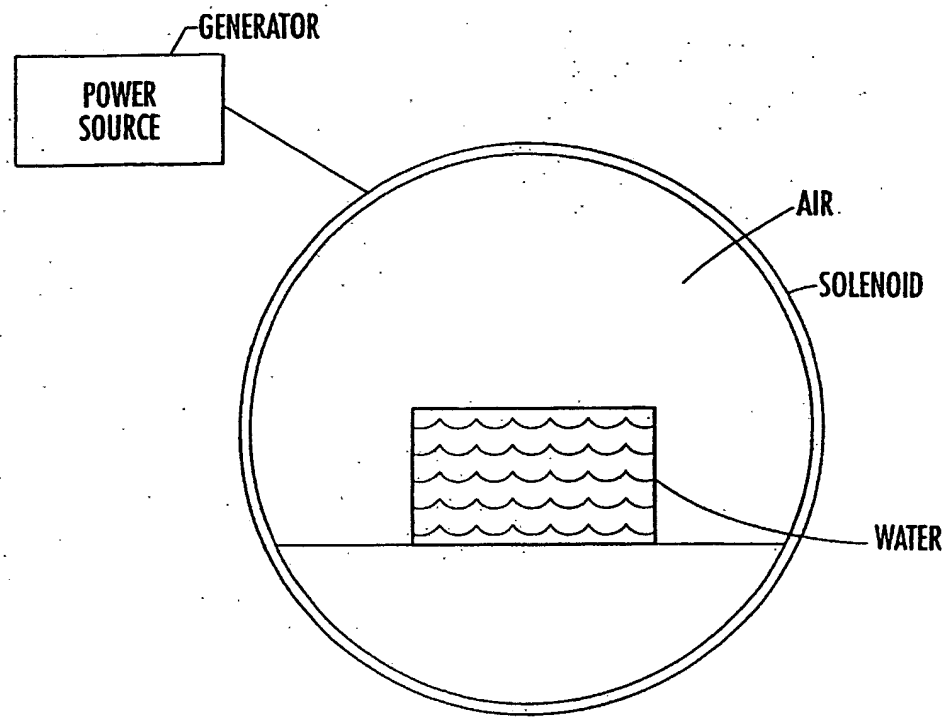

FIG. 8.

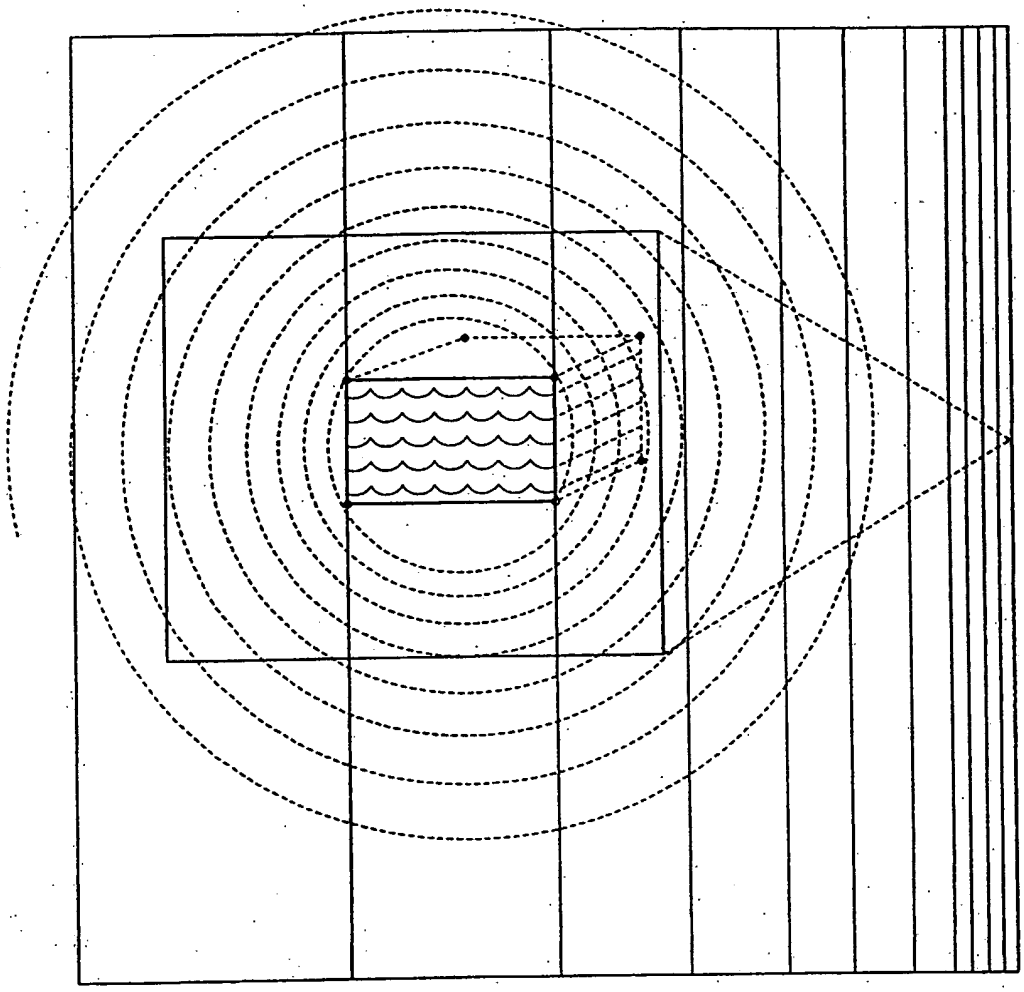

FIG. 9.

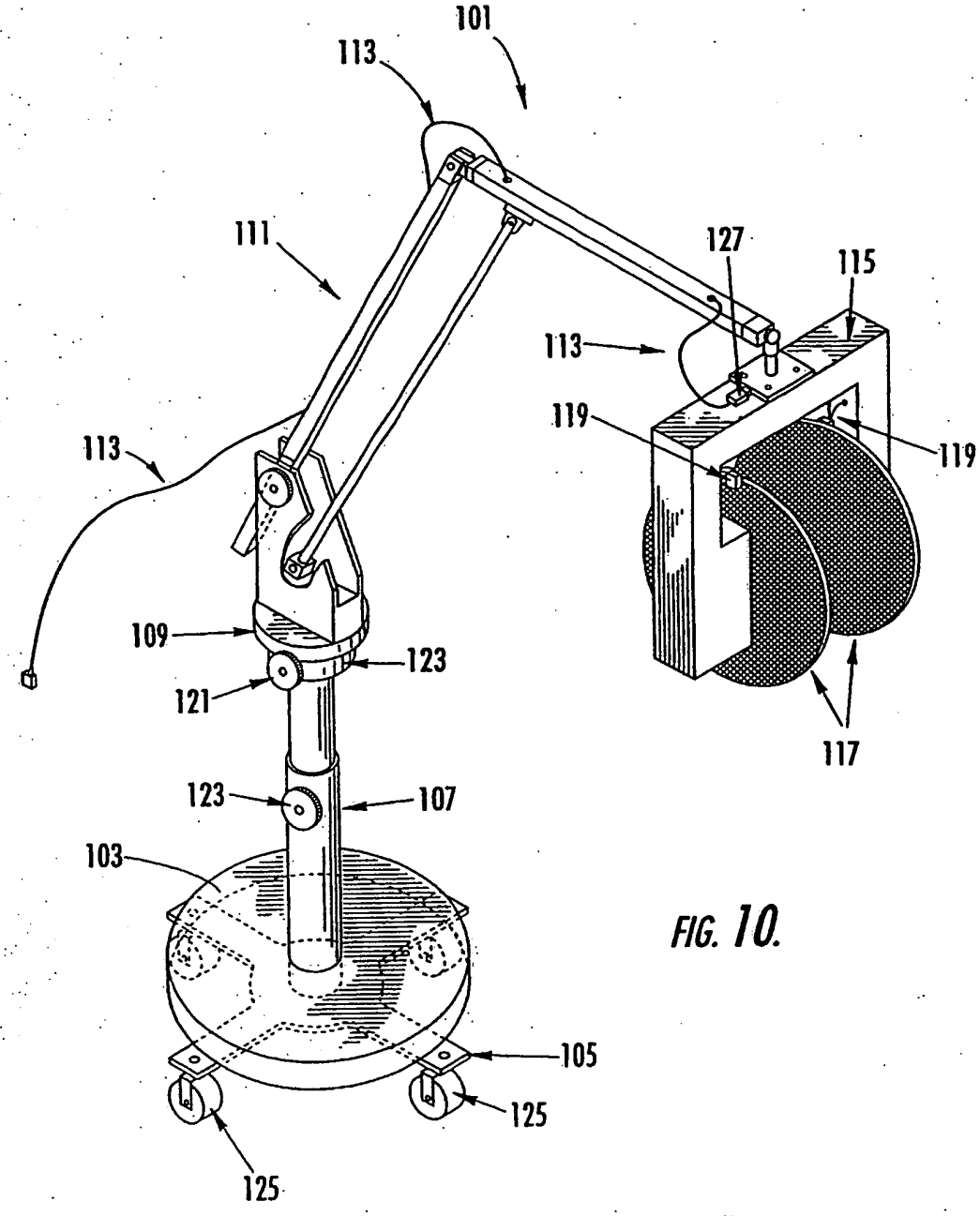
101
113
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FIG. 10.

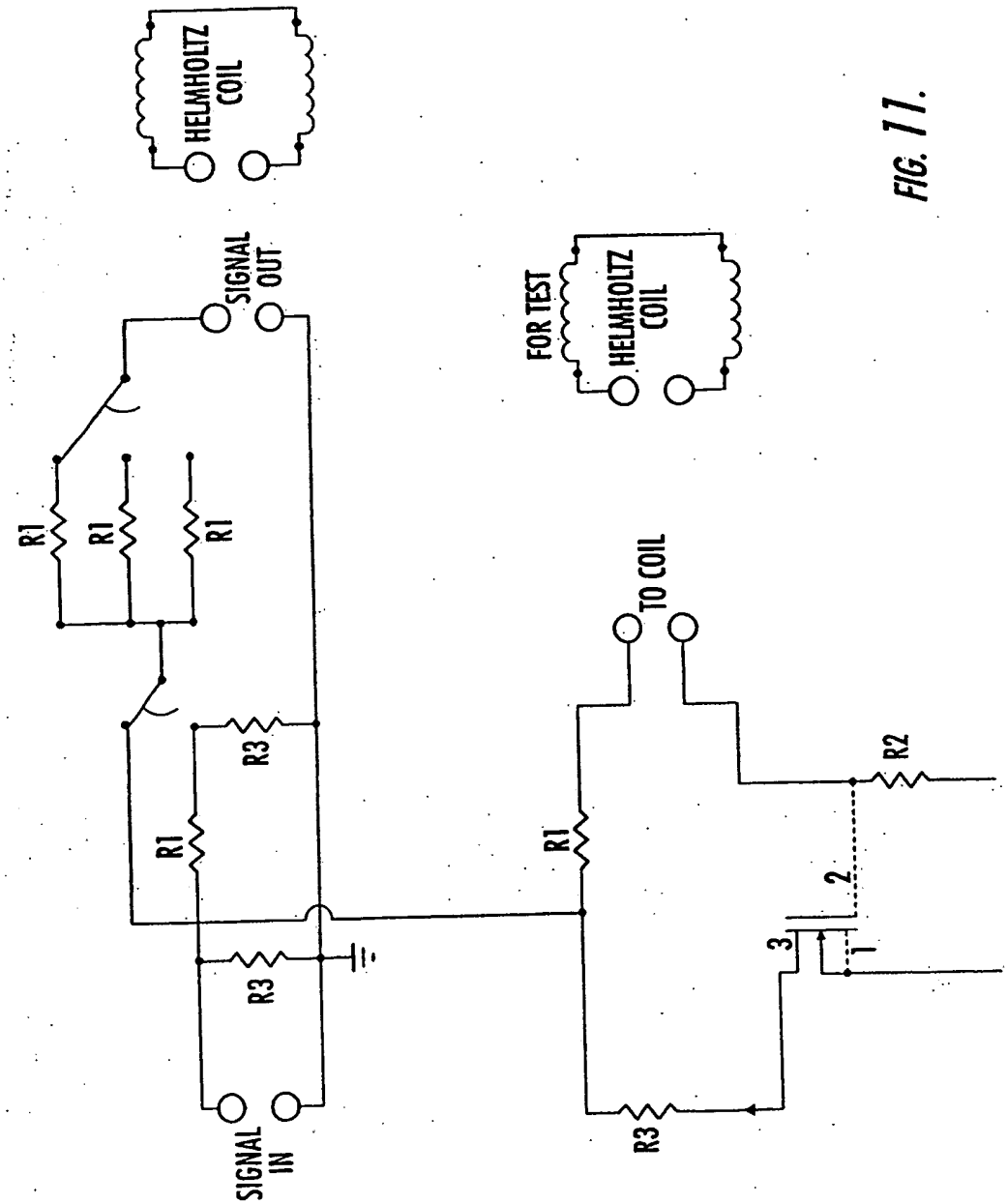
HELMHOLTZ COIL
SIGNAL OUT
FOR TEST
HELMHOLTZ COIL
R1
R1
R1
TO COIL
R3
R2
R1
R1
2
3
1
R3
R3
SIGNAL IN

FIG. 11.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/24041

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :A61N 2/00
US CL :600/009

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 600/009-015; 426/237-241

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,269,746 A (JACOBSON) 14 December 1993, see entire document.	1-18

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"B"	earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search 17 OCTOBER 2000	Date of mailing of the international search report 27 NOV 2000
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer JOHN LACYK Telephone No. (703) 308-0858

Form PCT/ISA/210 (second sheet) (July 1998) *